Docket:	:	A.19-07-004
Exhibit Number	:	Cal PA - ____
Commissioner	:	Genevieve Shiroma
Administrative Law Judge	:	Gerald F. Kelly
Cal PA Witness	:	Suzie Rose

PUBLIC ADVOCATES OFFICE

REPORT AND RECOMMENDATIONS ON REVENUES, RATE DESIGN, AND SPECIAL REQUESTS

Application 19-07-004

San Francisco, California
February 14, 2020

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MEMORANDUM

The Public Advocates Office at the California Public Utilities Commission ("Public Advocates Office") examined requests and data presented by California American Water Company ("Cal Am") in Application ("A.") 19-07-004 ("Application") to provide the California Public Utilities Commission ("Commission" or "CPUC") with recommendations that represent the interests of ratepayers for safe and reliable service at the lowest cost. Mukunda Dawadi is the Public Advocates Office's project lead for this proceeding. Richard Rauschmeier is the oversight supervisor and Kerriann Sheppard and Robyn Purchia are legal counsels.

Although every effort was made to comprehensively review, analyze, and provide the Commission with recommendations on each ratemaking and policy aspect presented in the Application, the absence from the Public Advocates Office's testimony of any particular issue does not necessarily constitute its endorsement or acceptance of the underlying request, methodology, or policy position related to that issue.

CHAPTER 1: EXECUTIVE SUMMARY

A. INTRODUCTION

This testimony presents the Public Advocates Office's analysis and recommendations on Cal Am's General Rate Case ("GRC") A. 19-07-004 for the following topics: Sales Forecasting, Revenues, Rate Design, and Special Requests #1 (Consolidation of Southern Division), #4 (Leak Adjustment Policy), #5 (Modification of Existing 15% Cap on WRAM Amortization), #7 (Alignment and Simplification of District Specific Tariffs), #8 (Meadowbrook Rate Design Consolidation Deferral), #12 (Annual Consumption Adjustment Mechanism), #15 (Proposed Operational Tariff Modifications), and #17 (Monterey Wastewater High Cost Fund).

B. SUMMARY OF RECOMMENDATIONS

The Commission should:

Chapter 2 – Sales Forecasts

- Adopt the CPUC Common Forecasting Methodology increases/decreases for commercial and public authority growth in the Sacramento District.
- Set the Sacramento District drought-rebound adjustment for residential service at 7.7% for Test Year 2021, instead of the 9.6% rate utilized by Cal Am (a 1.9% reduction in forecasted sales per customer).
- Set the Monterey District drought-rebound adjustment for residential service at 4.5% for Test Year 2021, instead of the 7.2% rate utilized by Cal Am (a 2.7% reduction in forecasted sales per customer).
- Set the Monterey District drought-rebound adjustment for commercial service at 2.5% instead of the 4.7% rate utilized by Cal Am.

- Set the Monterey District drought-rebound adjustment for public authority at 0% instead of the 9.9% utilized by Cal Am.

Chapter 3 – Revenues

- Utilize the demand forecasts recommended in Chapter 2 to calculate Sales Revenues from Variable Charges.
- Distribute new meters attributable to customer growth (except acquisitions) proportional to the average five-year growth at each meter size for each ratemaking area and for each customer class except residential customer classes.
- For new residential meters (except acquisitions), distribute new meters proportional to the average five-year growth at each meter size for each ratemaking area, when assessing combined growth of residential and Residential Fire Protection Services.
- Utilize the five-year average recorded revenues escalated to 2021 dollars to determine projected revenue for all Other Revenue sources, except for Method 5 Revenue, Miscellaneous Revenue, and Private Fire Protection Services.
- Adopt Cal Am's projections for Method 5 Revenue.
- Project Miscellaneous Revenue by increasing the 2018 amounts miscellaneous revenues by the same percentage as Cal Am's requested overall revenue requirement increase for each ratemaking area.
- Determine projected revenue for Private Fire Protection Services by utilizing the average five-year growth rate to determine the total number of projected meters, and calculating the total revenue using the fixed charge for each meter size.

- Include projected revenue from Cal Am's one unmetered customer in the Sacramento district by utilizing an escalated five-year average of recorded revenues.

Chapter 4 – Rate Design

- Adopt the following for meter charges:
    - Meter charges to collect 30% of the revenue requirement for all districts except Meadowbrook, San Diego, and Ventura.
    - Meter charges to collect 40% of the revenue requirement for Meadowbrook.
    - Meter charges to collect 20% of the revenue requirement for San Diego and Ventura.
    - The standard residential meter ratios for all districts except Monterey.
    - Residential meter ratios in Monterey that close the gap by 50% between the current ratios and the standard residential meter ratios.
- Adopt the following for tier breakpoints and commodity rates:
    - Authorize a five-tiered rate structure for Monterey County. For all districts, the Commission should authorize a four-tier rate structure.
    - Adopt the following general methodology for setting tier breakpoints for all districts, with specific exceptions for the Duarte district and Central Satellite district:
        - Tier 1 breakpoint = median winter use
        - Tier 2 breakpoint = 75% of water use in first two tiers
        - Tier 3 breakpoint = 95% of water use in first three tiers

- Tier 4 breakpoint (Monterey only) = 97% of water use in first four tiers
- Duarte Tier 3 breakpoint = 700 CGLs
- Central Satellite Tier 2 breakpoint = 105 CGLs

- For all districts except Duarte and Monterey, the Commission should utilize the following step-ups in commodity rates:
  - Tier 1 = 60% of the Standard Quantity Rate ("SQR")
  - Tier 2 = 90% of SQR
  - Tier 3 = 180% of SQR
  - Tier 4 = goal-seek to determine the % of SQR necessary to maintain revenue neutrality
- For Duarte, the Commission should utilize the following step-ups in commodity rates:
  - Tier 1 = 60% of SQR
  - Tier 2 = 90% of SQR
  - Tier 3 = 151% of SQR
  - Tier 4 = 200% of SQR.
- For Monterey County, the Commission should authorize the existing step-ups in commodity rates remain in place, as follows:
  - Tier 1 = 1.000
  - Tier 2 = 1.500
  - Tier 3 = 3.500
  - Tier 4 = 6.500
  - Tier 5 = 8.000

- Authorize Cal Am to continue its existing Low Income Ratepayer Assistance program.

Chapter 5 – Special Requests

1. Special Request #1 – Southern Division Consolidation

If the Commission authorizes consolidation of revenue requirements in the Southern Division, it should:

- Authorize the consolidation of no more than the revenue requirements and tariff pricing that Cal Am proposes.
- Not authorize identical tier breakpoints across the entire Southern Division, as Cal Am proposes.
- Authorize tier breakpoints based on the specific consumption profile of each district.
- Authorize a rate design that does not significantly increase bills for median water use for any district, when comparing "apples to apples" (that is, keeping tier breakpoints and commodity charge step-ups constant between the stand-alone and consolidated comparison scenarios).
- Authorize a rate design that maintains strong conservation signals in each district.
- Impute a savings of at least 0.761% on the consolidated Southern Division revenue requirement.

2. Special Request #4 – Leak Adjustment Policy

- Deny this special request.

3. Special Request #5 – Modification of Existing 15% Cap on WRAM Amortization

- Deny this special request.

4. Special Request #7 – Alignment and Simplification of District Specific Tariffs

- The Public Advocates Office does not oppose this request; but
- The Commission should only authorize this request for the Southern Division if it authorizes consolidation of Southern Division revenue requirements.

5. Special Request #8 – Meadowbrook Rate Design Consolidation Deferral

- Only authorize this request if the Commission authorizes a rate design structure for Meadowbrook that prioritizes reducing consumption, as recommended in Chapter 4 of this testimony.

6. Special Request #12 – Annual Consumption Adjustment Mechanism

- Deny this special request.
- Eliminate the pilot Annual Consumption Adjustment Mechanism in Monterey.

7. Special Request #15 – Proposed Operational Tariff Modifications

- For any authorized tariff modifications that result in collection of revenues, the Commission should require Cal Am to report the revenues in recorded data in step filings, in GRCs, and any other reports of recorded revenue.
- Deny the rule modifications requested for Rule 10 and Rule 18 that limit customers' ability to collect refunds for billing errors when the date of the billing error is known.

- Deny the requested tariff modification to Construction Meters that requires customers to pay outstanding balances in full before the customer's deposit is returned. The Commission should allow customers to deduct outstanding balances from deposits.

8. Special Request #17 – Monterey Wastewater High Cost Fund

- Deny this special request.

CHAPTER 2: DEMAND FORECAST

A. INTRODUCTION

This chapter provides the Public Advocates Office's analysis and recommendations on Cal Am's demand forecasts for each of its ratemaking areas. The terms "demand forecast" and "sales forecast" are often used interchangeably. Here, we use the term "demand forecast" to distinguish from sales/revenue that is not related to demand (e.g. fixed meter charges).[1] The demand forecast is utilized to calculate revenues from variable charges (discussed in Chapter 3 of this testimony), as well as certain expenses that are a function of water production.[2] Demand forecasts include customer counts, projected customer growth, and projected water consumption. The Public Advocates Office performed a review of Cal Am's testimony, supporting work papers, and its method for estimating demand, customer growth, and water consumption.

Based on available information, Cal Am over-forecasts its water demand for Test Year 2021. In general, over-forecasted demand results in over-forecasted revenue from variable charges, as discussed in more detail in Chapter 3.[3] If revenue from variable charges is over-forecasted in Test Year 2021, Cal Am can collect the difference between projected revenue and actual revenue from customers via the Water Revenue Adjustment Mechanism ("WRAM") Surcharge. Cal Am's over-forecasted demand is one example of how the company's proposals and forecasting methodologies lead to greater surcharge amounts on

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[1] Revenue is discussed in Chapter 3 of this report.

[2] Including wholesale water purchases and electricity. (See direct testimony of the Public Advocates Office's witness Anusha Nagesh).

[3] Generally, a higher demand forecast results in a higher forecast of revenue from variable charges. However, the revenue from variable charges also depends on the distribution of sales by tier, so there can be exceptions to this general statement. Revenue from variable charges and distribution of sales by tier are discussed in more detail in Chapter 3 of this testimony.

customer bills. Through this practice, Cal Am only provides customers with notice of a fraction of the bill the customer will actually experience during the GRC cycle. This lack of customer transparency is discussed in the direct testimony of Public Advocates Office's witness, Jayne Parker.[4]

B. SUMMARY OF RECOMMENDATIONS

The Commission should:

- Adopt the CPUC Common Forecasting Methodology increases/decreases for commercial and public authority growth in the Sacramento District.
- Set the Sacramento District drought-rebound adjustment for residential service at 7.7% for Test Year 2021, instead of the 9.6% rate utilized by Cal Am (a 1.9% reduction in forecasted sales per customer).
- Set the Monterey District drought-rebound adjustment for residential service at 4.5% for Test Year 2021, instead of the 7.2% rate utilized by Cal Am (a 2.7% reduction in forecasted sales per customer).
- Set the Monterey District drought-rebound adjustment for commercial service at 2.5% instead of the 4.7% rate utilized by Cal Am.
- Set the Monterey District drought-rebound adjustment for public authority at 0% instead of the 9.9% utilized by Cal Am.

C. DISCUSSION

1) Forecasted Number of Customer Meters

This section provides an analysis of Cal Am's projected number of customers and projected number of meters in service, as well as recommended changes to Cal Am's forecast. In general, Cal Am utilizes the following

[4] *See* direct testimony of the Public Advocates Office's witness Jayne Parker, "Report and Recommendations on Rates and Surcharges."

methodology to forecast the number of meters for each district and each customer class:[5]

Existing Meters + Projected Customer Growth + One-Time Increase for Acquisitions (where applicable) = TY 2021 Meters

Each of these parameters is discussed in more detail below.

(a) Existing Number of Meters

Cal Am utilizes the existing number of meters as a baseline for calculating the forecasted number of meters for Test Year 2021. In its ratemaking or Results of Operations Model ("RO Model"), Cal Am provides data for recorded meters by size, by revenue class, and by district for the "last recorded year."[6] In response to a data request, Cal Am clarified that the data for the "last recorded year" is not representative of any one point in time, but is instead an average of the number of meters on 12/31/2017 and 12/31/2018.[7] Cal Am utilizes these average numbers as a starting point for the number of meters, then adds projected growth for each year to arrive at the number of meters for Test Year 2021.

Cal Am justifies utilizing these average amounts by stating "[t]his methodology was used to weight the customer growth, so the revenue calculation is not over or understated."[8] However, Cal Am also accounts for customer growth occurring throughout the year by adding only 50% of the total projected growth amount for 2019 to the total number of meters for the "last recorded year" to

[5] Calculated in the RO Model spreadsheet All_Ch03_REV_RO_Meters.

[6] In the RO Model spreadsheet "All_Ch03_REV_RO_Meters," tab "Y_Rec Meters by Size."

[7] Attachment 1: Cal Am response to the Public Advocates Office's Data Request SR4 03 Q001.

[8] It appears Cal Am uses the term "weight" to mean that this methodology accounts for customer growth distributed throughout the year.

arrive at the total number of meters for 2019.[9] Therefore, Cal Am is accounting for the distributed customer growth twice.

The appropriate way to calculate the number of meters for Test Year 2021 is to start with the recorded number of meters on 12/31/2018, add the projected growth for 2019 and 2020, then add 50% of the projected growth for 2021. Adding 50% of the projected growth for 2021 appropriately accounts for the fact that not all meters will be added on 1/1/2021.

The number of meters listed for recorded meters by size, by revenue class, and by district for the "last recorded year" should be the number of meters that existed on 12/31/2018. The Public Advocates Office makes this change in the RO Model,[10] utilizing data provided by Cal Am.[11] This changes the total number of existing meters from 176,160[12] to 175,862.[13] The total number of meters projected for Test Year 2021 is further discussed below.

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[9] In the RO Model spreadsheet ""All_Ch03_REV_RO_Sales-Customers," the change in customers for 2019 (Column BR) is half of the projected annual change in customers (Column BC). The RO Model spreadsheet "All_Ch03_REV_RO_Meters," utilizes this information in the tab "IN_Projected Customers," Column T (2019) to add meters at different sizes.

[10] In the RO Model spreadsheet "All_Ch03_REV_RO_Meters," tab "Y_Rec Meters by Size."

[11] Attachment 1: Cal Am response to the Public Advocates Office's Data Request SR4 03 Q002, Attachment 1.

[12] Sum of row 1002 in RO Model spreadsheet "All_Ch03_REV_RO_Meters," tab "Y_Rec Meters by Size." Cal Am's response to the Public Advocates Office's Data Request SR4 03 Q003, a-b (Attachment 1) states that Cal Am inadvertently double counted some residential meters. Cal Am provided a new version of the file "All_CH03_REV_RO_Meters." In the new version of the file, the total number of meters is 175,556. The Public Advocates Office herein utilizes the numbers from the original RO Model spreadsheet as Cal Am has not issued *errata* for this spreadsheet.

[13] The total meters on 12/31/2018 in the tab "Detail_by_Meter_Sizes" in Cal Am response to the Public Advocates Office's Data Request SR4 03 Q002. Attachment 1. In that same file, the tab "All_District_by_Cust_Group" provides a different number of meters on 12/31/2018 (cell J149 = 175,408).

(b) Customer Growth

Rate Case Plan Guidance

The Rate Case Plan (D.07-05-062) provides the following guidance for projecting customer growth for the Test Year:[14]

> Forecast customers using a five-year average of the change in the number of customers by customer class. Should an unusual event occur, or be expected to occur, such as the implementation or removal of limitation on the number of customers, then an adjustment to the five-year average will be made.

Cal Am's Methodology

Cal Am contracted with M.Cubed to assist with customer growth forecasts.[15] M.Cubed's forecasts are based on the average change in the number of customers by class in the five years of recorded data, with adjustments for several discontinuities.[16]

Cal Am also commissioned the Gregory Group to prepare housing growth projections for the Sacramento District for 2019-2030.[17] According to M.Cubed's report, "[t]hese projections imply significantly greater growth in residential and non-residential water services than predicted by the CPUC Common Forecasting Methodology."[18] M.Cubed utilizes the Gregory Group's projections in its customer growth forecast for the Sacramento district.[19]

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[14] *Order Instituting Rulemaking to Consider Revisions to the General Rate Case Plan for Class A Water Companies* (2007) Decision (D.) 07-05-062, Appendix A, p. A-23, fn 4.

[15] Direct testimony of Bahman Pourtaherian, p. 9.

[16] Direct testimony of David Mitchell, pp. 3-4.

[17] Direct testimony of David Mitchell, Attachment 2, p. 4.

[18] Direct testimony of David Mitchell, Attachment 2, p. 4.

[19] Direct testimony of David Mitchell, Attachment 2, p. 4.

In most cases, Cal Am utilizes M.Cubed's customer growth forecasts in its RO Model.[20] However, for all districts in the Central Division, Cal Am assumes zero customer growth from 2018 to 2023, due to growth moratoriums and continued water supply issues in the region.[21]

Recommended Changes to Cal Am's Forecast

The Public Advocates Office does not contest the majority of Cal Am's customer growth forecasts. However, M.Cubed and Cal Am make an unreasonable assumption in translating the Gregory Group data to customer growth in commercial and public authority connections in the Sacramento District. In this one area, the Commission should adjust Cal Am's customer growth forecasts.

The Gregory Group study assessed housing growth projections (i.e. growth in residential connections), but did not assess growth projections for other customer classes.[22] To determine growth in commercial connections, M.Cubed calculated the average ratio of commercial to residential connections for the last five years, then multiplied this ratio by the projected number of new residential connections (as determined by the Gregory Group study) to project the number of new commercial connections.[23] M.Cubed utilized the same methodology for public authority connections.[24]

M.Cubed and Cal Am fail to justify the assumption that the number of commercial and public authority connections will grow at the same rate and on the

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[20] RO Model file "All_Ch03_REV_RO_Sales-Customers," tab "Proj Cust Calc WS-03," column AC.

[21] Direct testimony of Bahman Pourtaherian, p. 10 (relying on testimony of Christopher Cook).

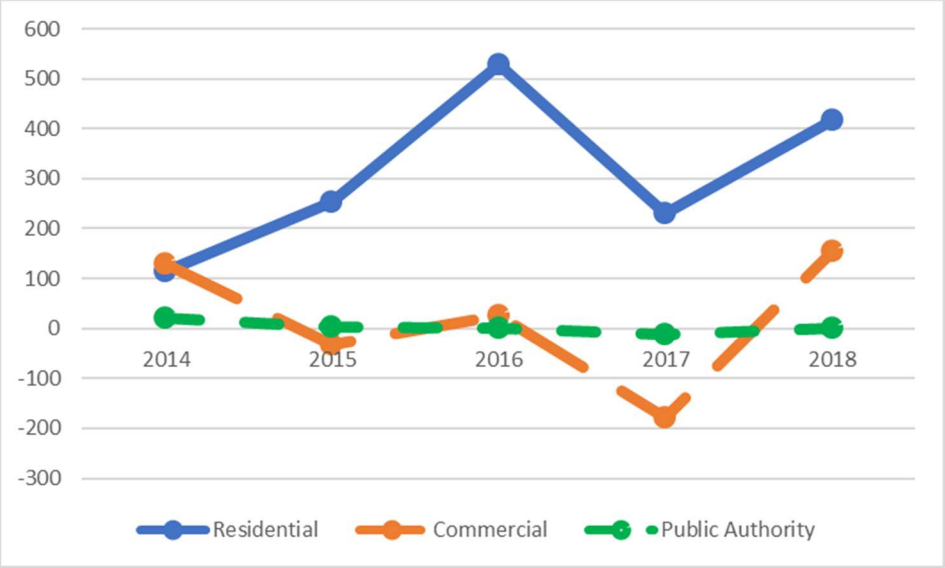
[22] *See* direct testimony of David Mitchell, Attachment 2, pp. 4-5.

[23] *See* direct testimony of David Mitchell, Attachment 2, pp. 4-5.

[24] *See* direct testimony of David Mitchell, Attachment 2, pp. 4-5.

same schedule as residential connections. The data for customer growth in residential, commercial, and public authority connections for the five recorded years shows no definitive relationship between residential growth and commercial or public authority growth, as shown in Figure 2-1 below.

Figure 2-1. Increase/Decrease in Recorded Customers Sacramento District[25]



It is unreasonable to assume that commercial and public authority connections will grow at the same rate and on the same schedule as the projected growth in residential connections. Cal Am's customer growth forecast for commercial and public authority connections should utilize the CPUC Common Forecasting Methodology — the five-year average of recorded data, adjusted to account for acquisitions and other unusual events.

Although M.Cubed elects to use the Gregory Group Housing Forecast, it calculated the projected cumulative increases/decreases in metered service under the CPUC Common Forecasting Methodology:[26]

[25] Data obtained from RO Model file "All_Ch03_REV_RO_Sales-Customers," tab "Proj Cust Calc WS-03," cells T136 – X139.

[26] Direct testimony of David Mitchell, Attachment 2, p. 5.

Table 2-1. Cumulative Increases/Decreases in Customers
Sacramento District

	2019	2020	Test Year 2021	Escalation Year 2022	Attrition Year 2023
Commercial	25	50	75	100	125
Public Authority	-2	-4	-7	-9	-11

The Commission should adopt the increases/decreases derived from the CPUC Common Forecasting Methodology for commercial and public authority growth, instead of Cal Am's projections that apply the Gregory Group Housing Forecast to non-residential classes. This changes the total number of additional meters in Test Year 2021 for commercial and public authority combined from 88 to 68.[27]

If the Commission adopts a forecast with a higher rate of growth for these customer classes in Test Year 2021 than what actually materializes, sales revenue will also be over-forecasted. This will result in a revenue under-collection, which will generate higher WRAM balances and higher WRAM surcharges to customers.[28]

[27] Cal Am's projected customer growth in its RO Model does not appear to correspond with its testimony recommendations for Sacramento Public Authority and Commercial classes. In its RO Model, Cal Am adds 13 customers per year for commercial, and one customer per year for Public Authority (in the file "All_Ch03_REV_RO_Sales-Customers," tab "Proj Cust Calc WS-03"). The comparison herein is to Cal Am's customer growth projections discussed in its testimony.

[28] Higher WRAM balances result in higher WRAM surcharges except when WRAM surcharge collections are already at the maximum-allowable collection rate for that district. In these cases, the WRAM collection is spread over more time, instead of increasing the amount of the WRAM surcharge for each billing period. See Chapter 5 of this testimony for a discussion of WRAM surcharge collection rates.

Additionally, although Cal Am states that it utilizes the Gregory Group Housing Forecast to forecast sales,[29] it does not add the corresponding number of meters for residential customers to its RO Model.[30] The Public Advocates Office corrects this error in its RO Model.[31]

(c) Customer Growth due to Acquisitions

Cal Am includes four acquisitions as a one-time customer increase: Rio Plaza, Fruitridge, Hillview, and Bellflower.[32] For Rio Plaza and Fruitridge, the number of customers is based on the most recent Annual CPUC Report. For Hillview and Bellflower, the number of customers was provided by these water utilities through a data request response to Cal Am. For each of these acquisitions, Cal Am adds all customers to its customer base beginning in 2019 and assumes no customer growth for 2020 – 2023.[33] The Public Advocates Office does not contest Cal Am's estimates for Customer Growth related to acquisitions.

[29] Direct testimony of David Mitchell, Attachment 2, p. 5. ("[T]he projections derived from the Gregory Group data are used in the sales forecast.")

[30] The direct testimony of David Mitchell, Attachment 2, p. 5, lists the projected cumulative increase in metered service relative to 2018 for Sacramento Residential for the Gregory Group Housing Forecast as 878 in TY 2021 and 2,069 in 2022. Cal Am's RO Model lists the cumulative projected average change in customers as 344 for 2021 and 344 for 2022 in the RO Model file "All_Ch03_REV_RO_Sales-Customers," tab "Proj Cust Calc WS-03," cells BS 161 and BT 161.

[31] RO Model file "All_Ch03_REV_RO_Sales-Customers," tab "Proj Cust Calc WS-03," row 136, cells AN through AR.

[32] The Commission's decision on the Bellflower acquisition is still pending as of 2/14/2020. Cal Am includes 1,903 Bellflower customers for Test Year 2021 in its 51,722 customer LA County district, an increase of approximately 3.7%.

[33] All information in this section is taken from the direct testimony of Bahman Pourtaherian, p. 11.

(d) Forecasted Number of Meters

Cal Am's Methodology

Cal Am estimates customer growth as described in the above sections, then adds these forecasts to the existing number of meters to determine the forecasted number of meters.[34] As discussed above, Cal Am adds 50% of the projected customer growth for 2019.

Recommended Changes to Cal Am's Forecast

The Commission should make the following changes to Cal Am's Forecasted number of meters:

- Utilize the number of recorded meters on 12/31/18 as the starting point for number of existing meters.
- Add 100% of the projected customer growth for 2019 and 2020, and 50% of the projected customer growth for 2021 to account for meter additions occurring throughout the year.
- Adjust Cal Am's customer growth forecasts as discussed above.

[34] The RO Model spreadsheet "All_Ch03_REV_RO_Meters" utilizes the tab "IN_Projected Customers" to calculate the projected meters by size. The "IN_Projected Customers" tab links out to the "All_Ch03_REV_RO_Sales-Customers" spreadsheet where the customer growth, including acquisitions, is calculated.

The Public Advocates Office makes the above changes in its RO Model workpapers. These changes decrease the average number of projected meters in Test Year 2021 by 244 meters.[35] [36]

2) Forecasted Consumption per Connection

This section provides an analysis of Cal Am's projected customer water consumption, as well as recommended changes to Cal Am's forecasts.

Overall, based on available information, Cal Am over-forecasts water consumption per connection for Test Year 2021. In general, this results in over-forecasted revenue from variable charges, as discussed in more detail in Chapter 3.[37] If revenue from variable charges is over-forecasted in Test Year 2021, Cal Am will collect the difference between projected revenue and actual revenue from variable charges from customers via the WRAM Surcharge. Cal Am's over-forecast of consumption per connection is one example of how Cal Am's proposals and forecasting methodologies lead to Cal Am collecting from customers more of its revenue from surcharges, while providing customer-notice of only a fraction of the bill impacts that customers will likely actually experience

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[35] This number represents the difference in the average projected number of meters for 2021 between Cal Am's RO Model submitted with its application and the Public Advocates Office's RO Model. In Cal Am's response to the Public Advocates Office's Data Request SR4 03 Q003, a-b (Attachment 1), Cal Am provided an updated file for its RO Model file "All_Ch03_REV_RO_Meters." The Public Advocates Office herein utilizes the numbers from the original RO Model spreadsheet as Cal Am has not issued *errata* for this spreadsheet. Additionally, there are discrepancies between the growth numbers Cal Am provides in its testimony and the growth numbers that are in Cal Am's RO Model for Sacramento Public Authority, Commercial, and Residential growth.

[36] The average projected number of customers in 2021 in Cal Am's original RO Model is 244 customers less than the Public Advocates Office's projection. The number of existing meters in Cal Am's original RO Model is 298 more than the Public Advocate's Office recommended number for existing meters.

[37] Generally, a higher demand forecast results in a higher forecast of revenue from variable charges. However, the revenue from variable charges also depends on the distribution of sales by tier, so there can be exceptions to this general statement. Revenue from variable charges and distribution of sales by tier are discussed in more detail in Chapter 3 of this testimony.

during this GRC cycle as discussed in detail in the testimony of Public Advocates Office's witness, Jayne Parker.[38]

(a) Commission Guidance

In D.04-06-018, the Commission provides the following guidance for forecasting water consumption for the Test Year:

- "Use monthly data for 10 years, if available. If 10 years data is not available, use all available data, but not less than five years of data. If less than five years of data is available, the utility and the [Public Advocates Office] will have to jointly decide on appropriate method to forecast the projected level of average consumption.
- Use 30-year average for forecasting values for temperature and rain.
- Remove periods from the historical data in which sales restrictions (e.g., rationing) were imposed or the Commission provided the utility with a sales adjustment compensation (e.g., a drought memorandum account), but replace with additional historical to obtain 10 years of monthly data, if available. . . .
- Water sales for customer classes other than residential, multifamily, and business (such as industrial, irrigation, public authority, reclaimed, and other) will be forecasted on total - consumption by class using the best available data."[39]

[38] *See* direct testimony of the Public Advocates Office's witness, Jayne Parker, "Report and Recommendations on Rates and Surcharges."

[39] *Order Adopting Rate Case Plan* (2004) D. 04-06-018, Appendix, pp. 6-7.

In D.16-12-026, the Commission ordered "Class A and B water utilities to bring forth proposals in their next GRC application to improve their forecasting methods to align rates to costs, and send timely conservation signals."[40] In addition, the Commission stated, "[t]hose proposals shall provide analysis and information to make a showing that the proposals are well-calculated to meet this Decision's objectives, and shall be evaluated for their consistency with the principles adopted in this Decision."[41]

(b) Cal Am's Methodology

For most districts, Cal Am utilizes the consumption forecast by customer class developed by M.Cubed.[42] For districts Meadowbrook, Garrapata, Dunnigan, and the four acquisitions, Cal Am did not have enough historic data for M.Cubed to use in its econometric model, so Cal Am relied on assumptions detailed in the testimony of Bahman Pourtaherian to develop its consumption forecast.[43]

M.Cubed utilizes an econometric model to estimate mean monthly water sales per customer, conditional on season, weather, marginal water price, and per capita income.[44] The econometric model utilizes ten years of class-level monthly data on water sales and number of connections. The estimation period spans from January 2009 to December 2018.[45] The seasonal and weather components are

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[40] *Re Guidance on Water Rate Structure and Tiered Rates* (2016) D.16-12-026, p. 31.

[41] D.16-12-026, pp. 32-33.

[42] Direct testimony of Bahman Pourtaherian, p. 11.

[43] Direct testimony of Bahman Pourtaherian, pp. 11-12.

[44] All information in the paragraph is taken from direct testimony of David Mitchell, Attachment 2, pp. 9-11.

[45] In the case of the public authority model, M.Cubed states that it did not have ten years of data for Baldwin Hills, Duarte, and San Marino. However, it did have ten years of data for the aggregated Los Angeles district, and, therefore, utilized the aggregated Los Angeles data. (Direct testimony of David Mitchell, Attachment 2, p. 11.)

based on the California Urban Water Conservation Council's GPCD (gallons per capita per day) Weather Normalization Methodology. The model includes variables to measure the effects of water use restrictions from the 2013-2017 drought. Separate models are utilized for estimating the residential, commercial, and public authority customer classes.

M.Cubed excludes 2014 and 2015 from the calculation of average sales because of drought restrictions in place during those years. M.Cubed notes that while drought restrictions were also in place in 2016, mandatory restrictions were lifted in June 2016, in time for the summer irrigation season.[46]

To forecast average sales per customer, M.Cubed sets the base average sales to 2018 average sales in the case of the residential, commercial, public authority, and irrigation classes, and to the most recent three-year average of sales per customer for the other classes.[47] M.Cubed then adjusts the base average sales for weather, continuing drought rebound, changes in marginal water cost, and changes in income.[48] David Mitchell's testimony provides a detailed description of each of these adjustments. Generally, these factors provide the following adjustments to the base average sales:

1) Weather: decreases the projected sales per customer[49]

2) Continuing drought rebound: increases the projected sales per customer[50]

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[46] Direct testimony of David Mitchell, Attachment 2, p. 2, fn. 1.

[47] Direct testimony of David Mitchell, Attachment 2, p. 17.

[48] Direct testimony of David Mitchell, Attachment 2, p. 17.

[49] Except for Larkfield Residential, which registers a small increase, and Larkfield Public Authority, which stays constant. (Direct testimony of David Mitchell, Attachment 2, p. 17.)

[50] Direct testimony of David Mitchell, Attachment 2, pp. 19-20.

3) Changes in marginal water cost and changes in income: M.Cubed evaluated together, decreases the projected sales per customer[51]

The combined adjustments generally result in an overall increase in projected sales per customer for each customer class, in each ratemaking area, compared to base average sales.[52]

(c) Recommended Changes

M.Cubed's analysis appears to comply with the Commission guidance discussed above. However, there are a few assumptions in M.Cubed's analysis that overlook key facts and warrant downward adjustments to Cal Am's forecasts.

1) Combined Adjustments

In 2018, California adopted two key pieces of legislation to "make water conservation a California way of life."[53] These bills implement former-Governor Jerry Brown's directives to use water more wisely, eliminate water waste, strengthen local drought resilience, and improve agricultural water use efficiency and drought planning.[54] They emphasize efficiency and stretching existing water supplies in our cities and on farms.

Despite this state legislation encouraging conservation and the rate increases contemplated in the instant application that are also likely to encourage conservation, Cal Am projects increases in sales per customer for each customer

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[51] Direct testimony of David Mitchell, Attachment 2, p. 22

[52] David Mitchell's testimony presents the combined results of drought rebound, marginal water cost, and changes in income compared to the 2018 *weather-normalized* average sales (Attachment 2, p. 23). He also provides the impacts of weather-normalizing the 2018 data (Attachment 2, p. 23). Together, the two result in an increase in projected sales/customer for almost all customer classes, across all districts.

[53] SB 606 (Hertzberg) and AB 1668 (Friedman).

[54] Exec. Order B-37-16 (May 9, 2016).

class, in each ratemaking area (compared to base average sales in 2018).[55] M.Cubed provides extensive analysis for each category of adjustments. However, taken as a whole, the widespread increases in demand are unreasonable. The recommendations discussed below address two specific areas that warrant adjustments.

2) Sacramento Drought Rebound

M.Cubed calculates drought rebound by evaluating a "drought response recovery period" of May 2017 – December 2018 to determine the extent to which recent sales lag behind pre-drought levels.[56] M.Cubed then assumes that at least 20% of the savings achieved during the state conservation mandate will persist through the forecast period.[57]

M.Cubed excludes 2014 and 2015 from the calculation of average sales because of drought restrictions in place in those years.[58] In determining how much recent sales lag behind pre-drought levels, M.Cubed compares data prior to 2014 to data from May 2017 – December 2018. M.Cubed then assumes that the drought rebound will not occur entirely during this rate case cycle and applies a unique percent increase to base average sales for each ratemaking area to account for drought rebound. The drought rebound adjustment that M.Cubed applies to the Sacramento District for Test Year 2021 is 9.6%, which is a higher drought

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[55] David Mitchell's testimony presents the combined results of drought rebound, marginal water cost, and changes in income compared to the 2018 *weather-normalized* average sales (Attachment 2, p. 23). He also provides the impacts of weather-normalizing the 2018 data (Attachment 2, p. 23). Together, the two result in an increase in projected sales/customer for almost all customer classes, across all districts.

[56] Direct testimony of David Mitchell, Attachment 2, p. 18.

[57] Direct testimony of David Mitchell, Attachment 2, p. 18.

[58] Direct testimony of David Mitchell, Attachment 2, p. 2, fn. 1.

rebound percentage than M.Cubed applies to all other Cal Am Districts except Ventura.[59]

In Cal Am's Sacramento District, there was a significant event that occurred between the end of 2013 and May 2017 — the completion of residential meter installations that enabled a full transition from flat-rate service to a conservation-based tiered rate system. Tiered rate systems are generally recognized as encouraging conservation, and the transition of Sacramento customers to tiered rates likely contributed to some amount of water conservation in the 2014 – 2017 time period. Therefore, some portion of the reduced consumption during this time period was likely unrelated to the drought. A Water Science and Policy Working Paper titled "Do Increasing Block Rate Water Budgets Reduce Residential Water Demand? A Case Study in Southern California" concludes that in the area studied, "[w]e estimate that demand was reduced by at least 18 percent, although the reduction was achieved gradually over more than three years."[60]

Additionally, in December of 2018, the Commission authorized Cal Am to shift the Sacramento District residential rates from a two-tiered to a three-tiered rate structure.[61] The effects of this shift are not captured in either the May 2017 – December 2018 data that M.Cubed utilizes to forecast drought rebound, or the 2018 data that M.Cubed utilizes to determine the base average sales.

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[59] Direct testimony of David Mitchell, Attachment 2, p. 19. Table 2 provides Residential Drought Recovery Adjustments and shows that in Test Year 2021, Sacramento has the highest adjustment of all districts except for Ventura. In Escalation Year 2022, Sacramento has the highest adjustment of all districts (equivalent to Duarte).

[60] Kenneth A. Baerenklau, Kurt A. Schwabe & Ariel Dinar, *Do Increasing Block Rate Water Budgets Reduce Residential Water Demand? A Case Study in Southern California* 2 (Water Science & Policy Center, Univ. of Cal., Riverside, Working Paper 01-0913 2013) *available at* https://www.financingsustainablewater.org/sites/www.financingsustainablewater.org/files/resource_pdfs/WSPC-%282013%29-Do-Increasing-Block-Rate-Water-Budgets-Reduce-Water-Use.pdf.

[61] D.18-12-021, pp. 39-40.

M.Cubed's analysis shows that Cal Am's Sacramento District experienced higher reductions in consumption during the pre-2014 to post-2016 period than all other Cal Am Districts for residential rates.[62] It is very likely that at least some of this reduced consumption is due to the transition to a tiered rate structure, and that the impacts of the shift from a two-tier to three-tier structure remain to be seen.

Therefore, it is unreasonable to assume (as Cal Am does) that Sacramento will experience drought rebound at a *higher* rate post-2018 than all but one other district.[63] If anything, Sacramento would likely experience drought rebound at a lower rate post-2018 than other districts[64] because Sacramento is the only district that introduced tiered rates during the 2014 to 2016 time period, and is also the only district that recently moved from a two-tiered to three-tiered rate system.

M.Cubed does make a small adjustment in the residential price and income adjustments section to account for the switch from a two-tiered to three-tiered rate design.[65] However, this adjustment only applies to assumptions about consumption moving forward (compared to 2018 weather-normalized data). It does not correct for the fact that consumption reductions from pre-2014 to post-2016 may have been due to non-drought-related factors.

While it is difficult to assess the exact amount of sales reduction that is attributable exclusively to the change to a tiered rate system, it is reasonable to assume that the Sacramento District drought-rebound adjustment should not exceed the average drought-rebound adjustment for all other districts. The average drought-rebound adjustment for all districts except Sacramento is 7.7%.

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[62] Direct testimony of David Mitchell, Attachment 2, p. 18.

[63] Direct testimony of David Mitchell, Attachment 2, p. 19. Table 2 provides Residential Drought Recovery Adjustments and shows that in Test Year 2021, Sacramento has the highest adjustment of all districts except for Ventura. In Escalation Year 2022, Sacramento has the highest adjustment of all districts (equivalent to Duarte).

[64] Relative to the weather-normalized 2018 average sales.

[65] Direct testimony of David Mitchell, Attachment 2, p. 21, fn. 10.

Therefore, the Commission should set the Sacramento District drought-rebound adjustment at 7.7% for Test Year 2021, instead of the 9.6% rate Cal Am utilized. If the forecast is not adjusted to account for this overestimate, it will likely result in an under-collection of revenue in the district, and an increased WRAM balance.

Accordingly, in its workpapers, the Public Advocates Office reduces the Sacramento District sales per customer by 1.9% for residential sales for Test Year 2021.[66]

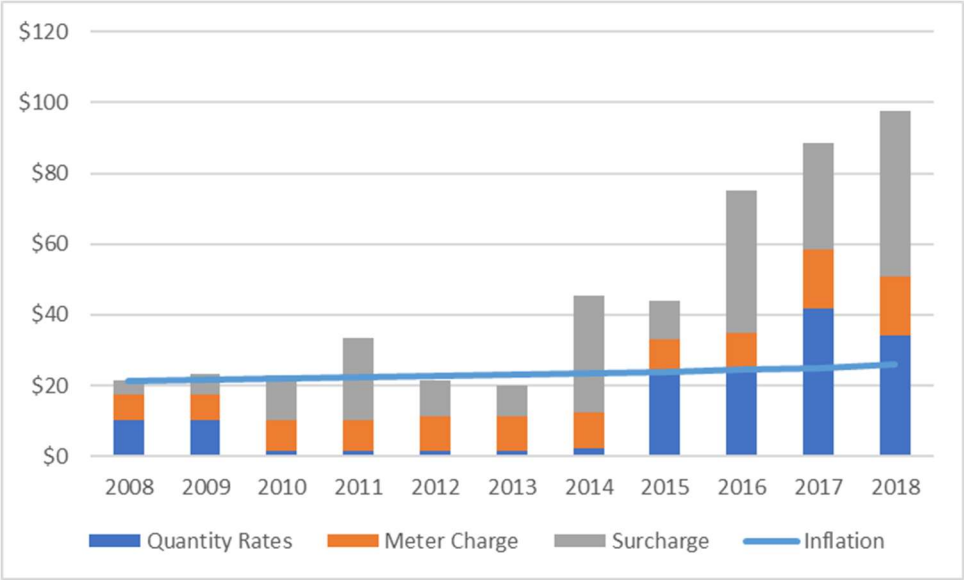
3) Monterey Drought Rebound

As described above, M.Cubed estimates drought rebound by comparing sales pre-2014 to sales from May 2017 – December 2018. Using the methodology described above, M.Cubed arrives at a drought rebound adjustment of 7.7% for the Monterey District for Test Year 2021.

From pre-2014 to May 2017, the Monterey District experienced significant rate increases in residential rates, as shown in Figure 2-2 below.

[66] Adjustment provided in the RO Model spreadsheet "All_Ch03_REV_RO_Sales-Customers."

Figure 2-2. Monterey District Residential Bill for 5.1 ccf (1 ccf = 100 cubic feet)[67]



A residential customer's bill for 5.1 ccf of use in 2018 was over four times as much as the bill for the same amount of use in 2013. With such a significant bill increase in the comparison periods, it is unreasonable to assume that the sales decrease in the Monterey District from pre-2014 to post-2016 was exclusively due to the drought. Other factors, such as higher customer bills, likely impacted sales. M.Cubed does include residential price and income adjustments (separate from the drought rebound adjustment) that account for *future* price changes. However, those adjustments do not account for the fact that the significant price changes from pre-2014 to post-2016 likely impacted sales during that time period.

While it is difficult to assess the exact amount of sales reduction attributable exclusively to bill increases in Monterey, it is reasonable to assume that the past and upcoming rate increases that are higher in Monterey than all other districts will cause a lower drought-rebound in the Monterey District than all other

[67] Data and methodology for this graph are discussed in the Attachments to the direct testimony of the Public Advocates Office's witness, Jayne Parker.

districts. The lowest drought-rebound adjustment utilized by M.Cubed is 4.5%.[68] The Commission should set the Monterey District drought-rebound adjustment at 4.5%, instead of the 7.2% rate Cal Am utilized for Test Year 2021. If the forecast is not adjusted to account for this overestimate, it will likely result in an under-collection of revenue in the district, and an increased WRAM balance that customers pay through a surcharge.

The commercial and public authority classes in Monterey experiences similar rate increases during this time period. Therefore, the Commission should apply the same rationale to these customer classes, setting the drought-rebound adjustment to the lowest utilized for each of these classes for all districts. For the commercial class, this results in an adjustment of 2.5% instead of the 4.7% rate Cal Am utilized for Test Year 2021. For public authority, this results in an adjustment of 0% instead of the 9.9% rate Cal Am utilized.

Accordingly, in its workpapers, the Public Advocates Office reduces the Monterey District sales per customer by 2.7% for residential sales, by 2.2% for commercial sales, and by 9.9% for public authority sales for Test Year 2021.[69]

3) Forecasted Consumption

Cal Am's consumption forecast for each customer class in each ratemaking area, as utilized to calculate revenues, amounts to the product of the projected number of customers and the forecasted consumption per connection. Generally, Cal Am's methodology comports with Commission guidance. The Public Advocates Office recommends changes to Cal Am's forecasted consumption that result from the recommendations above, including:

- Lower commercial and public authority growth in Sacramento district.

[68] Direct testimony of David Mitchell, Attachment 2, p. 19. Table 2 provides Residential Drought Recovery Adjustments with the lowest adjustment for the San Marino District at 4.5%.
[69] Adjustment provided in the RO Model spreadsheet "All_Ch03_REV_RO_Sales-Customers."

- Lower drought-rebound adjustment in Sacramento district for residential service.
- Lower drought-rebound adjustment in Monterey district for residential, commercial, and public authority services.

The combined effect of these recommendations is to lower the total projected consumption from Cal Am's projected 37,189,699 ccf to 36,973,669 ccf for Test Year 2021.[70]

D. CONCLUSION

In developing its sales forecast for Test Year 2021, Cal Am generally utilizes an econometric model that considers numerous factors known to influence water consumption. Cal Am's methodology for developing its demand forecasts generally comports with Commission guidance. However, Cal Am overlooks some key factors and makes some unreasonable assumptions in developing its demand forecasts. Altogether, this results in Cal Am forecasting a higher customer water demand than is warranted by the data. In any given district, if actual consumption is lower than forecasted consumption, the WRAM balances in that district will increase which results in increases in customer surcharges. The Commission should adopt the Public Advocates Office's recommendations to correct Cal Am's demand forecast. Doing so will help protect customers from further increasing WRAM surcharges over the course of this GRC cycle.

[70] RO File "ALL_CH03_REV_RO_Sales-Customers," tab "OUT_Rec-Proj Sales," row 502.

CHAPTER 3: REVENUES

A. INTRODUCTION

This chapter provides an analysis of Cal Am's projected revenues for each of its ratemaking areas, as well as recommended changes to Cal Am's projected revenues. Revenues include Sales Revenues (based on the demand forecasts discussed in Chapter 2), and Other Revenue, including private fire service, Method 5 revenues,[71] and all other sources of revenue. The Public Advocates Office performed a review of Cal Am's testimony, supporting work papers, and its methods for estimating its projected revenue.

B. SUMMARY OF RECOMMENDATIONS

The Commission should:

- Utilize the demand forecasts recommended in Chapter 2 to calculate Sales Revenues from Variable Charges.
- Distribute new meters attributable to customer growth (except acquisitions) proportional to the average five-year growth at each meter size for each ratemaking area and for each customer class except residential customer classes.
- For new residential meters (except acquisitions), distribute new meters proportional to the average five-year growth at each meter size for each ratemaking area, when assessing combined meter growth for residential and Residential Fire Protection Services.

[71] D.87-09-026 requires Class A water utilities to use what is known as Method 5 to account for the applicable tax on contributions and advances. Under Method 5, the developer pays a gross-up related to the net over-time net present value cost difference between tax depreciation benefits and revenue requirements.

- Utilize the five-year average recorded revenues escalated to 2021 dollars to determine projected revenue for all Other Revenue sources, except for Method 5 Revenue, Miscellaneous Revenue, and Private Fire Protection Services.
- Adopt Cal Am's projections for Method 5 Revenue.
- Forecast Miscellaneous Revenue by increasing the 2018 recorded miscellaneous revenues by the same percentage as Cal Am's requested overall revenue requirement increase for each ratemaking area.
- Determine projected revenue for Private Fire Protection Services by utilizing the average five-year growth rate to determine the total number of projected meters, and calculating the total revenue using the fixed charge for each meter size.
- Include projected revenue from Cal Am's one unmetered customer in the Sacramento district by utilizing an escalated five-year average of recorded revenues.

C. DISCUSSION

1) Sales Revenue

This section provides an analysis of Cal Am's projected sales revenue, as well as recommended changes to Cal Am's forecasts.

(a) Sales Revenue from Variable Charges

The sales revenue from variable charges is calculated utilizing the demand forecasts discussed in Chapter 2 and the distribution of sales by tier for residential customer classes. Cal Am estimates the percent usage by tier by simulating the

share of each district's 2015-18 residential water use that would fall into each tier.[72]

The Public Advocates Office does not contest Cal Am's method of calculating the sales revenue from variable charges at present rates. The differences between the Public Advocates Office estimates and Cal Am's estimates for sales revenue from variable charges at present rates is a direct result of the differences in demand forecasts discussed in Chapter 2.

However, it appears that Cal Am over-forecasts its demand, and therefore over-forecasts its sales revenue from variable charges for Test Year 2021. If revenue from variable charges is over-forecasted in Test Year 2021, Cal Am will collect the difference between projected revenue and actual revenue from variable charges from customers via the WRAM surcharge.

Cal Am's over-forecast of sales revenue from variable charges is another example of how Cal Am's proposals and forecasting methodologies lead to Cal Am collecting more of its revenue from surcharges. As a result, customer-notices are not transparent because they only provide a fraction of the bill impacts that customers will likely actually experience during the GRC cycle, as discussed in the testimony of Public Advocates Office's witness, Jayne Parker.[73]

(b) Sales Revenue from Fixed Charges

Sales Revenue from fixed charges is calculated utilizing the number of connections forecasted for each meter size, for each customer class, and for each ratemaking district. Recommended changes to Cal Am's forecasted total number of connections are discussed in Chapter 2. However, in each customer class, the

[72] Attachment 2: Cal Am response to the Public Advocates Office's Data Request SR4 01 Q002.a.i.

[73] *See* direct testimony of the Public Advocates Office's witness Jayne Parker, "Report and Recommendations on Rates and Surcharges."

fixed charge differs by meter size. Therefore, after determining customer growth projections, it is necessary to assign the customer growth in each customer class to a specific meter size to determine the sales revenue from the fixed charges. This section provides an analysis of Cal Am's projected meter size distribution, as well as recommended changes to Cal Am's forecasts for meter size distribution.

The forecasted meter size plays an important role in forecasting revenue. The dollar amount billed for a customer's service charge is dependent on the meter size. Meter size assumptions are *not* trued up in the WRAM or in Step Increase filings,[74] unlike revenue differences associated with variable charges.[75] Therefore, if Cal Am projects customer growth entirely in the lowest meter sizes, and *any* customer growth occurs in the larger meter sizes, rates and surcharges are not adjusted in WRAM or Step Increase filings to account for the increased revenue that Cal Am will have collected. Cal Am retains as profit to its shareholders the difference between the projected revenue (with the lower meter sizes) and the actual revenue (at higher meter sizes). This revenue difference can occur even while WRAM balances increase, causing customers to receive WRAM surcharges on their bills while Cal Am's shareholders retain the profits from the increased revenue resulting from meter-size differentials.

Differences in fixed charges can vary significantly by meter size, which impacts revenue projections. For example, in Cal Am's San Marino ratemaking area, the monthly fixed charge for the smallest commercial meter size (5/8 x 3/4-inch) is $10.04/month, while the monthly fixed charge for the largest commercial meter size (10-inch) is $1,154.60/month – over 100 times higher than the smallest commercial meter. Therefore, if Cal Am were to project that all new commercial

[74] Also known as "escalation filings."

[75] WRAM filings assess revenue from variable charges, but do not assess revenue from service charges. Step Filings assess customer growth, but do not assess the meter sizes at which the growth occurs.

meters in San Marino occurred at the smallest meter size and just *one* new meter occurred at the largest existing size, Cal Am shareholders would pocket the $13,725 difference for Test Year 2021.

Cal Am's Methodology

For customer growth related specifically to acquisitions, Cal Am's projected meter size distribution matches the recorded meter sizes for its new customers. For all other customer growth, across all customer classes, for all ratemaking areas, Cal Am projects that all new connections will utilize the smallest size meter available for that customer class.[76] Cal Am does not provide any rationale for this projection.

Cal Am presents its projected meter size distribution in a misleading manner. The spreadsheet tab utilized to distribute the customer growth across meter sizes is named "Rec Pctg Mtrs by Size WS-02." Based on other similarly named tabs, this is presumably an abbreviation for "Recorded Percentage Meters by Size Worksheet-02." The title at the top of this spreadsheet tab is "Recorded % Meters by Size by Revenue Class by Revenue System." The description of the worksheet at the beginning of this spreadsheet is left blank.

While this tab proports to list the *recorded* percentage of meters by size, it does not in fact do so. The recorded meters by size are listed in the tab "Y_Rec Meters by Size," and do not match the distribution in the "Rec Pctg Mtrs by Size WS-02" tab. In the latter tab, Cal Am utilizes a formula that assigns all meters to the smallest possible meter size for each customer class. This tab is then utilized to determine the projected meters by size, ensuring that Cal Am's projections for all new meters due to customer growth (aside from customer growth related to acquisitions) occur at the smallest possible meter size for each customer class.

[76] RO Model spreadsheet "All_Ch03_RO_REV_Meters," tab "Rec Pctg Mtrs by Size WS-02."

Cal Am's unsupported methodology for distributing new meter sizes results in both non-sensical and unreasonable projections. For example, Cal Am's projected number of construction meters in Ventura County at the 5/8" x 3/4" size is *negative* 2 (-2) for both Test Year 2021 and Escalation Year 2022.[77] It is non-sensical to project a negative number of meters, and it is unreasonable to assume that growth will occur at only the smallest possible meter sizes, when existing meters occur at a variety of meter sizes. As discussed further below, historic data shows growth occurring at a wide variety of meter sizes.

Recommended Changes – All Customer Classes Except Residential

It is unreasonable to assume, as Cal Am does, that all customer growth will occur at the smallest size meter for each customer class. Cal Am's own RO Model is not even set up to distribute new meters in this fashion. The RO Model takes the recorded percentage of meters by size for each customer class and ratemaking area and multiplies that percentage by projected customer growth for customer class and ratemaking area. The RO Model then adds those new meters to the existing recorded meters to arrive at the projected number of meters by size and customer class (new meters associated with acquisitions are added separately). However, Cal Am entered a formula that forces the "recorded" percentages to list 100% in the smallest meter size line, thereby manipulating its own RO Model to add meters only at the smallest meter sizes.

A more reasonable method is to project the meter size distribution for customer growth by examining historic data to determine where growth has occurred in each customer class for each ratemaking area. For all customer classes except residential, it is reasonable to assume that the size distribution of new meters will be proportional to the five-year historic average distribution for each customer class and each ratemaking area. Attachment 3 provides the historic

[77] Tab "Proj Mtrs by Size WS-07," cells L1047 and M1047.

average distribution of new meters for each customer class and each ratemaking area, based on data provided by Cal Am.[78] The Commission should adopt this methodology for all customer classes except residential (discussed below). The Public Advocates Office makes this correction in its RO Model.[79]

If the Commission authorizes Cal Am's methodology for adding all new meters at the lowest possible size for all customer classes, Cal Am will likely collect more revenue from fixed charges than it is currently projecting, and that additional revenue will be profit to shareholders. If Cal Am experienced an under-collection in revenue from variable charges and excess revenue from fixed charges, only the under-collection would be trued up in the WRAM — resulting in increased WRAM surcharges to customers while Cal Am increases its profits.

Recommended Changes – Residential

For all ratemaking areas, Cal Am adds all new residential meters to the smallest possible meter size in the "Residential Fire Protection Service" category.[80] This size is listed as "5/8 to 3/4" RES to 1" RES MFS," which corresponds to a 5/8 x 3/4" water meter.[81] Only 1% of all existing residential meters (single and multifamily) are in the "Residential Fire Protection Service" category.[82]

According to the 2010 Building, Fire and Residential Code, all new residential properties in California are required to have fire sprinkler systems

[78] Attachment 1: Cal Am response to the Public Advocates Office's Data Request SR4 03 Question, Q001, Attachment 1.
[79] All_Ch03_REV_RO_Meters, tab "Rec Pctg Mtrs by Size WS-02."
[80] All_Ch03_REV_RO_Meters, tab "Rec Pctg Mtrs by Size WS-02."
[81] All_Ch03_REV_RO_Meters, tab "REF_Master_RevSys-RevCls-MtrSz."
[82] All_Ch03_REV_RO_Meters, tab "Y_Rec Meters by Size," row 1002.

installed, effective January 1, 2011.[83] Guidance published by the American Water Works Association states: "[w]hile the most common, traditional domestic service line is size ¾-inch with a ⅝-inch water meter, the most common piping sizes in RFSS [Residential Fire Sprinkler System] applications for one- and two-family dwellings are 1-inch, 1½- inch, and 2-inch."[84]

While the 2010 California Building Code requires new residential properties to install fire sprinkler systems, historic data shows that not all new meters installed in Cal Am's service territories have been added as Residential Fire Protections Service ("RFPS") meters.[85] Similar to the method described above, for residential service, the most reasonable method of distributing new meters is to utilize the percent of meters installed at each size, in each ratemaking area for the past five years. However, for residential service, an additional step is necessary to determine how to distribute new growth for residential meters between RFPS and regular residential service. Historic distribution is again the most reasonable way to assess future distribution. Therefore, to determine the size and class distribution of residential meters, the Public Advocates Office totaled the residential meters (RFPS and regular residential service) added in each district from 2014 – 2018. New meters were distributed based on the percent of total residential meters added to each size and each class (RFPS or regular residential) over the 2014 – 2018 period.

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[83] National Fire Protection Assn., Fire Sprinkler Initiative, Sprinkler Requirements, *available at* https://www.nfpa.org/Public-Education/Staying-safe/Safety-equipment/Home-fire-sprinklers/Fire-Sprinkler-Initiative/Legislation-and-adoptions/Sprinkler-requirements.

[84] American Water Works Assn., *Residential Fire Sprinkler Systems Guidance for Water Utilities* (2018) p. 8 *available at* https://www.awwa.org/Portals/0/AWWA/ETS/Resources/ResidentialFireSprinklerSystems.pdf.

[85] Attachment 1: Cal Am response to the Public Advocates Office's Data Request SR4 03 Question 001, Attachment 1.

2) Other Revenue

Other revenue sources include, but are not limited to, Method 5 Revenues,[86] Contract Revenues, Antenna Leases, Miscellaneous Revenue, Rents, and Private Fire Protection Services. Cal Am does not provide any explanation in its testimony or workpapers as to how it developed its forecasts for Other Revenues. The Rate Case Plan states that "Forecasted amounts shall include an explanation of the forecasting method."[87] Cal Am failed to do so.

The testimony of Public Advocates Office's witness Mukunda Dawadi addresses the treatment of Method 5 revenues in relation to Cal Am's Special Request #6.[88] The Commission should adopt Cal Am's projected Method 5 revenues.[89]

In forecasting Other Revenue, the Rate Case Plan states "Estimate other revenues using the best available data."[90] In general, a five-year average of recorded revenues utilizes the best available data, unless there is a compelling reason to utilize a different method. For the majority of revenues in the "Other Revenue" category, Cal Am does not utilize a five-year average of recorded data. It is unclear what methodology Cal Am utilizes, as it does not provide explanation or justification for its calculation of Other Revenues. The Commission should utilize a five-year average of recorded revenues, escalated each year using Cal Am's escalation factors, to determine projected revenue for all other revenue

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[86] D.87-09-026 requires Class A water utilities to use what is known as Method 5 to account for the applicable tax on contributions and advances. Under Method 5, the developer pays a gross-up related to the net over-time net present value cost difference between tax depreciation benefits and revenue requirements.

[87] D.07-05-062, p. A-24.

[88] *See* direct testimony of the Public Advocates Office's witness Mukunda Dawadi.

[89] RO Model file "All_Ch03_REV_RO_Meters," tab "Rec-Proj Revenues All WS-08."

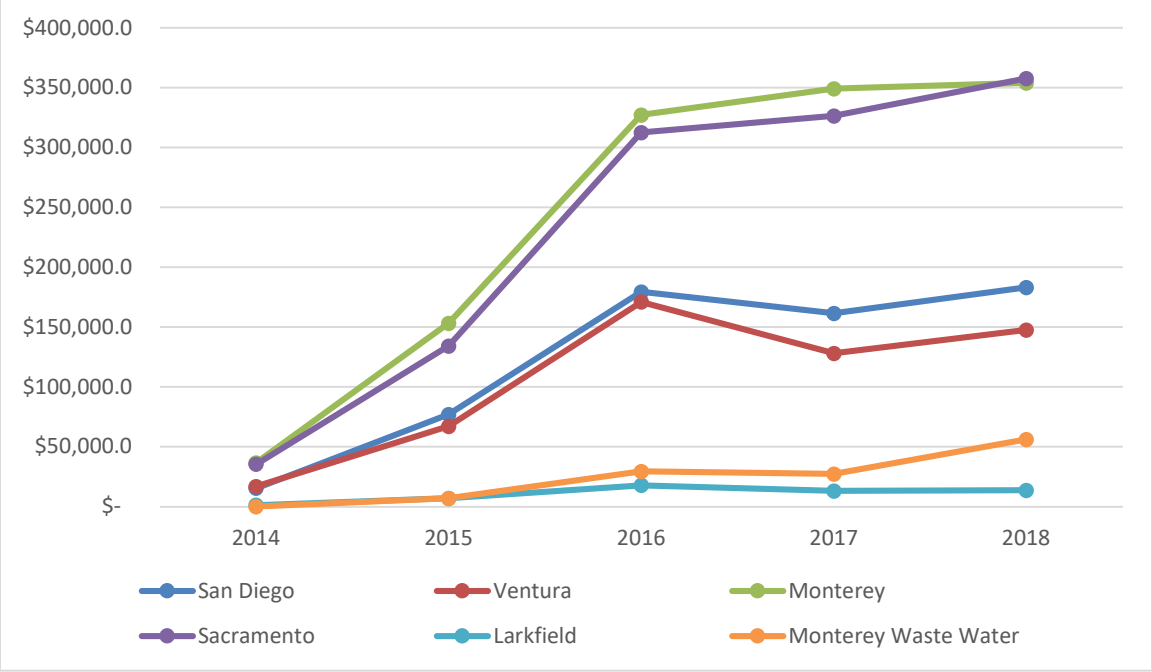
[90] D.07-05-062, p. A-23.

sources, except for Method 5 Revenue, Miscellaneous Revenue, and Private Fire Protection Services ("PFPS"). Utilizing this methodology results in an increase of $9,762 of forecasted Other Revenue for Test Year 2021.

3) Miscellaneous Revenue

For Miscellaneous Revenue, Cal Am utilizes a five-year average of recorded revenues. However, in this specific case, the five-year average does not represent the best available data. Miscellaneous Revenue consists of a number of line items, including fees for late payments, reconnection fees, after hours charges, etc. The recorded data shows a significantly increasing trend of total miscellaneous revenue for each district over the past five years, as seen in the below Figure.

Figure 3-1. Miscellaneous Revenue 2014 – 2018[91]



[91] Attachment 4: Cal Am response to the Public Advocates Office's Data Request SR4 04 Q001, Attachment 1

As a whole, Miscellaneous Revenue increased 793% from 2014 to 2018. Based on this trend, it is reasonable to assume that Miscellaneous Revenue will continue to increase from 2018 to Test Year 2021. Additionally, late payment charges made up over 80% of Miscellaneous Revenue in 2018,[92] and late payment charges are calculated as a percentage of the customer's unpaid balance.[93] Cal Am is requesting increases in revenue requirements across all districts, which will generally increase customer's bills. Based on the past trend in Miscellaneous Revenue, as well as future bill increases that will likely translate to increased late payment charges, it is reasonable to assume that Miscellaneous Revenue will continue to increase from 2018 to Test Year 2021. Therefore, utilizing a five-year average of past miscellaneous revenues is not a reasonable method for projecting Miscellaneous Revenue in Test Year 2021. It is reasonable to assume that late payment charges, and therefore Miscellaneous Revenue, will increase by approximately the same percentage that customer bills are expected to increase.

The Public Advocates Office increased the Miscellaneous Revenue for each district by the same percentage as Cal Am's requested revenue requirement increases for each ratemaking area for Test Year 2021.[94]

This results in a total increase in Miscellaneous Revenue of $585,615 for Test Year 2021.

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[92] Attachment 4: Cal Am response to the Public Advocates Office's Data Request SR4 04, Q001, Attachment 1

[93] Cal Am's tariff sheets for "Other Fees" states: "A late charge of 1.5% on unpaid balance will be assessed."

[94] The Public Advocates Office utilizes the requested revenue requirement as a proxy for the amount that customer bills are expected to increase. Revenue requirement increases do not include any increases in surcharges. Any individual customers may see a bill increase that is larger or smaller than the revenue requirement increase, depending on the adopted rate design, and the water use of the customer.

4) Private Fire Protection Services

For PFPS services, revenues are collected based on a meter charge for each PFPS meter. The meter charge varies by meter size. Therefore, PFPS revenue is best estimated by estimating the number of meters at each size and multiplying by the meter charge. Cal Am assumes no growth in PFPS meters. Historic data shows that this class of service shows growth across all districts over the past five years. As is generally the case with customer growth (discussed in more detail above), the Commission should project the number of PFPS meters by adding the average five-year growth to the existing number of meters. Because meter charges vary by size, the size of the new meters should be distributed based on average growth in meters at each size in each ratemaking area. The Public Advocates adds new PFPS meters to its RO Model, utilizing the average five-year growth, with the size of the new meters distributed based on average growth in meters at each size in each ratemaking area.[95]

5) Unmetered Sacramento Customer

Cal Am's response to a Public Advocates Office data request states that there is one unmetered customer in the Sacramento district.[96] However, there is no revenue listed in Cal Am's RO Model in the row designated "unmetered residential," nor is the revenue listed in Cal Am's reporting of Miscellaneous Revenue. The Commission should ensure that this revenue is included in revenue projections. Projected revenue from this customer is best estimated as the five-year average of recorded revenues, inflated to 2021 dollars by Cal Am's escalation

[95] RO file "All_Ch03_REV_RO_Sales-Customers," tab "Proj Cust Calc WS-03."

[96] Attachment 1: Cal Am response to the Public Advocates Office's Data Request SR-03 Q003, c-e.

factors. Accordingly, the Public Advocates Office adds $67,486 to the RO Model as unmetered Sacramento residential revenue.[97]

It is notable that the revenue generated from Other Revenue (including Miscellaneous Revenue and PFPS Revenue) is not included in WRAM filings, and therefore does not get trued up if the projected revenues are less than actual revenues. The Rate Case Plan dictates that water utilities estimate Other Revenues for escalation and attrition years using a five-year average of recorded other revenue.[98] Any differentials in revenues collected in the Test Year are also not trued up in Step Increase filings. Ultimately, if the Commission authorizes lower revenues from Other Revenue than Cal Am collects, Cal Am retains the difference as profit to its shareholders. This revenue difference can occur even while WRAM balances increase, causing customers to receive WRAM surcharges on their bills while Cal Am's shareholders retain the profits from under-forecasted revenue from late-payment fees, PFPS meters, and other charges.

D. CONCLUSION

The Commission should:

- Utilize the demand forecasts recommended in Chapter 2 to calculate Sales Revenues from Variable Charges.
- Distribute new meters attributable to customer growth (except acquisitions) proportional to the average five-year growth at each meter size for each

[97] RO Model file "All Chap 3 Rev RO Revenues," tab "Rec-Proj Revenues WS-04," row 264, with the flag in tab "List of Proj Rev Adj WS-05" row 264 changed to "N."

[98] D.07-05-062, p. A-20 ("Other revenues will be estimated using a five-year average of recorded other revenue.").

ratemaking area and for each customer class except residential customer classes.

- For new residential meters (except acquisitions), distribute new meters proportional to the average five-year growth at each meter size for each ratemaking area, when assessing combined growth of residential and Residential Fire Protection Services.
- Utilize the five-year average recorded revenues escalated to 2021 dollars to determine projected revenue for all Other Revenue sources, except for Method 5 Revenue, Miscellaneous Revenue, and Private Fire Protection Services.
- Adopt Cal Am's projections for Method 5 Revenue.
- Project Miscellaneous Revenue by increasing the 2018 amounts miscellaneous revenues by the same percentage as Cal Am's requested overall revenue requirement increase for each ratemaking area.
- Determine projected revenue for PFPS by utilizing the average five-year growth rate to determine the total number of projected meters, and calculating the total revenue using the fixed charge for each meter size.
- Include projected revenue from Cal Am's one unmetered customer in the Sacramento district by utilizing an escalated five-year average of recorded revenues.

CHAPTER 4: RATE DESIGN

A. INTRODUCTION

This chapter provides an analysis of Cal Am's rate design for each of its ratemaking areas, as well as recommended changes. Rate design translates a company's approved revenue requirement into rates paid by customers. The three main components of a customer's bill are 1) meter charges, 2) commodity charges,[99] and 3) surcharges and fees. This chapter provides the Public Advocates Office's analysis and recommendations on customer's meter charges and commodity charges.[100] Generally, meter charges provide greater revenue stability to a company, while the commodity charges encourage conservation. Rate design seeks to find an appropriate balance between the two, while ensuring revenue neutrality (that is, that the revenue collected is equal to the revenue requirement).

The Public Advocates Office performed a review of Cal Am's testimony, supporting work papers, and its methods for its recommended rate design, and provides its recommendations below.

B. SUMMARY OF RECOMMENDATIONS

The Commission should adopt the following for meter charges:

- Meter charges to collect 30% of the revenue requirement for all districts except Meadowbrook, San Diego, and Ventura.
- Meter charges to collect 40% of the revenue requirement for Meadowbrook.

[99] Also known as variable charges, volumetric charges, and/or quantity charges.

[100] Surcharges and fees are discussed in the testimony of other Public Advocates Office witnesses, including the direct testimony of Jayne Parker and Anusha Nagesh.

- Meter charges to collect 20% of the revenue requirement for San Diego and Ventura.
- The standard residential meter ratios for all districts except Monterey.
- Residential meter ratios in Monterey that close the gap by 50% between the current ratios and the standard residential meter ratios.

The Commission should adopt the following for tier breakpoints and commodity rates:

- Authorize a five-tiered rate structure for Monterey County. For all districts, the Commission should authorize a four-tier rate structure.
- Adopt the following general methodology for setting tier breakpoints for all districts, with specific exceptions for the Duarte district and Central Satellite district:
    - Tier 1 breakpoint = median winter use
    - Tier 2 breakpoint = 75% of water use in first two tiers
    - Tier 3 breakpoint = 95% of water use in first three tiers
    - Tier 4 breakpoint (Monterey only) = 97% of water use in first four tiers
    - Duarte Tier 3 breakpoint = 700 CGLs
    - Central Satellite Tier 2 breakpoint = 105 CGLs
    - For all districts except Duarte and Monterey, the Commission should utilize the following step-ups in commodity rates:
        - Tier 1 = 60% of SQR
        - Tier 2 = 90% of SQR

- Tier 3 = 180% of SQR
- Tier 4 = goal-seek to determine the % of SQR necessary to maintain revenue neutrality

- For Duarte, the Commission should utilize the following step-ups in commodity rates:
  - Tier 1 = 60% of SQR
  - Tier 2 = 90% of SQR 151% of SQR
  - Tier 4 = 200% of SQR.
- For Monterey County, the Commission should authorize the existing step-ups in commodity rates remain in place, as follows:
  - Tier 1 = 1.000
  - Tier 2 = 1.500
  - Tier 3 = 3.500
  - Tier 4 = 6.500
  - Tier 5 = 8.000

The Commission should authorize Cal Am to continue its existing Low Income Ratepayer Assistance program.

C. DISCUSSION

1) Meter Charge

This section provides an analysis of Cal Am's proposed method of calculating meter charges, as well as recommended changes to Cal Am's proposal.

(a) Percent of Revenue Requirement Collected in Meter Charge

Cal Am proposes to set its meter charges to collect 30% of its revenue requirement for each of its ratemaking areas, except for Meadowbrook, where Cal Am proposes collecting 40% of the revenue requirement in meter charges. For most districts, this proposal shifts approximately 10% of the revenue requirement collection from commodity charges to meter charges.

Commission Decision (D.)16-12-026 provides the following guidance for rate design regarding the ratio of meter (fixed) to commodity (quantity) charges:

> GRC proposals to shift the fixed/quantity revenue collection ratio will be assessed for their consistency with the principles of equity, promotion of conservation, reduction in WRAM balances and surcharges, cost-based rates, and increases in cost transparency.[101]

Cal Am does not provide justification for its proposed shift in the fixed/commodity revenue collection ratio. Cal Am acknowledges that shifting revenue collection from the commodity charge to the meter charge, all other things being equal, will generally 1) result in lower bills for larger water users and higher bills for smaller water users, and 2) increase water use due to a lower marginal cost of water for larger water users.[102] Shifting revenue collection from the commodity charge to the meter charge can often increase revenue stability, thereby reducing potential WRAM surcharges.[103], [104]

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[101] D.16-12-026, pp. 56-57.

[102] Direct testimony of David Mitchell, Technical Memorandum #3, p. 15.

[103] The direct testimony of David Mitchell analyzes the impact of these shifts on revenue stability for the Southern Division and concludes that it increases revenue stability in four of the five ratemaking areas (Technical Memorandum #3, p. 15). San Diego is the exception.

[104] The direct testimony of David Mitchell provides numerical analyses of the impact of shifting the fixed/commodity revenue collection ratio, but neither M.Cubed or Cal Am provide a discussion of the pros and cons of these shifts in revenue collection, or justify why Cal Am proposes the exact percentage it does for any district except Meadowbrook.

While shifting revenue collection from the commodity charge to the meter charge is likely to result in higher bills for smaller water users and increased water use if all other factors are held equal, other aspects of rate design can help mitigate these impacts on customer bills. Lowering the commodity charge rates for use in lower tiers and increasing the commodity charge rates for use in higher tiers can lower customers' bills for small water users and encourage conservation. Lowering tier breakpoints can provide similar results. Therefore, shifting revenue collection from the commodity charge to the meter charge can result in increased revenue stability without increasing customer bills for smaller water users and without increasing water use, if adopted with appropriate commodity rates and tier breakpoints.

The Public Advocates Office recommended changes to the commodity charges are discussed in the proceeding section. Provided that these recommended changes to commodity charges are adopted, Cal Am's request to increase revenue collection from meter charges to 30% of revenue requirement is reasonable for all districts, with the following exceptions:

Meadowbrook

Cal Am proposes to collect 40% of Meadowbrook's revenue requirement from meter charges.[105] However, in its RO Model, Cal Am sets the meter charge collection to 30% of its revenue requirement.[106] The current Meadowbrook meter charges collect 50% of its revenue requirement.[107] Shifting to collecting 40% of its revenue requirement in meter charges provides a more gradual transition than

[105] Direct testimony of Bahman Pourtaherian, p. 46.

[106] Cal Am RO Model file "All_CH10_RD_RO_Northern," tab "Cost of Service WS-02," cell P67.

[107] The direct testimony of Bahman Pourtaherian at p. 52 states that currently 50% of fixed costs are collected in meter charges. Cal Am RO Model file "All_CH10_RD_RO_Northern," tab "MEAD_RD," cell F47 shows that 50% of existing revenue is collected in meter charges.

shifting to 30% recovery in this GRC. The Commission should authorize Cal Am to collect 40% of its Meadowbrook revenue requirement in its service charge, provided that the below recommendations for commodity charges are also authorized.

San Diego and Ventura

Cal Am proposes to collect 30% of San Diego and Ventura's revenue requirements from meter charges.[108] However, in its RO Model, Cal Am sets the meter charge collection to 20% of its revenue requirement.[109] Currently, San Diego and Ventura each collect approximately 10% of their respective revenue requirements from meter charges.[110] Shifting to collecting 20% of revenue requirement in meter charges provides a more gradual transition than shifting to 30% recovery. The Commission has found that "service charges should increase but in a gradual transition."[111] Additionally, Cal Am's testimony shows that shifting the revenue recovery from commodity charges to meter charges does not improve revenue stability in San Diego for the specific scenarios analyzed.[112] [113]

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[108] Direct testimony of Bahman Pourtaherian, pp. 48-49.

[109] Cal Am RO Model file "All_CH10_RD_RO_Southern," tab "Cost of Service WS-02," row 67.

[110] Cal Am RO Model file "All_CH10_RD_RO_Southern," tabs "SDC_RD" and "LACV_RD," cells F47.

[111] D.16-12-026, p. 56. The terms "service charges" and "meter charges" are interchangeable.

[112] Direct testimony of David Mitchell, Technical Memorandum #3, p. 15.

[113] The scenarios analyzed for San Diego in the Direct testimony of David Mitchell, Technical Memorandum #3, did not vary the tier breakpoints. All scenarios utilized Cal Am's proposed tier breakpoints, which are higher than the existing tier breakpoints and higher than the Public Advocates Office recommended tier breakpoints. With lower tier breakpoints and higher revenue recovery in the upper tiers, as recommended herein, it is likely that shifting revenue recovery from commodity charges to meter charges would increase revenue stability. Under this scenario, it is reasonable to shift some revenue recovery from commodity charges to meter charges in San Diego.

It is more appropriate to adopt a shift of 10% from the existing levels than a shift of 20%.

If the Commission does not authorize consolidation of the Southern District, it should authorize that Cal Am collect 20% of its San Diego and Ventura revenue requirement in its meter charge, provided that the below recommendations for commodity charges are also authorized.

(b) Meter Ratios

The meter charge differs depending on customer's meter size. Standard meter ratios adopted by the Commission[114] are normally used to set the rate differential between the various meter sizes. Cal Am utilizes these standard meter ratios for all districts except Monterey. In Monterey, the Commission authorized meter ratios with larger rate differentials than standard.[115]

In this Application, Cal Am proposes closing the gap by 50% between the current ratios and the standard residential meter ratios.[116] Table 4-1 shows the standard meter ratios, the existing meter ratios in Monterey, and Cal Am's proposed meter ratios for Monterey.

[114] Standard Practice U-7-W, p. 5, citing D.86-05-064.

[115] Direct testimony of Bahman Pourtaherian, Attachment 5 errata.

[116] Direct testimony of Bahman Pourtaherian, pp. 45-46.

Table 4-1. Standard, Existing, and Proposed Meter Ratios – Monterey[117]

Meter Size	D.86-05-064 Ratio	D.16-12-003 Ratio	Cal Am Proposed Ratio
5/8"	1	1.0000	1.00
3/4"	1.5	1.7510	1.63
1”	2.5	3.4991	3.00
1.5”	5	10.9700	7.99
2”	8	18.7222	13.36
3”	15	35.1041	25.05
4”	25	61.4322	43.22
6”	50	131.6404	90.82
8”	80	210,6247	145.31

According to David Mitchell’s analysis, the mean impact to a residential customer with a 5/8” meter is an increase of approximately 2%.[118] It is reasonable to shift meter ratios in Monterey towards the standard meter ratios, as proposed by Cal Am, provided that there are no changes to commodity rates that further shift the revenue-recovery burden to customers with smaller meter sizes and lower use.

For Monterey commodity rates, Cal Am proposes changes to the number of tiers and changes to the step-ups to commodity rates that would likely have this very impact. These proposed changes to Monterey commodity rates should not be adopted, as discussed below.

[117] Direct testimony of Bahman Pourtaherian, Attachment 5 errata.

[118] Direct testimony of Bahman Pourtaherian, pp. 46.

2) Commodity Charges

There are four primary variables that determine commodity rates for each ratemaking area: 1) Usage by Tier; 2) Tier Breakpoints; 3) Number of Tiers; and 4) Step-Ups in Commodity Charges. These are each discussed below.

(a) Usage by Tier

To determine how much revenue Cal Am will collect at each tier, it is first necessary to determine the percent of the total water consumption for each district that is projected to occur at each tier. If actual water consumption is exactly equal to forecasted water consumption for a given district, but more usage occurs in lower tiers than forecasted, the WRAM balance will grow, resulting in more surcharges on customer bills. Therefore, the projected water usage by tier is an important component of rate design.

Cal Am provides varying descriptions of the water use data it utilized to determine the percent usage by tier. Cal Am's consultant M.Cubed utilizes 2017 – 2018 water use data to evaluate usage by tier evaluation of various rate design scenarios assessed for each district.[119] In Cal Am's comparison of current to proposed water usage percentages,[120] it lists the year 2018 for water use data. Cal Am's response to the Public Advocates Office's data request states that it relies on M.Cubed's scenarios (which utilize 2017 – 2018 water use data), and then states "[t]he % [u]sage by tier is the simulated share of each district's 2015-18 residential water use falling in each tier."[121]

M.Cubed's analysis found that calibrating water use data to 2017 – 2018 (as opposed to 2015 – 2018) generally had no impact on water bills or water

[119] Direct testimony of David Mitchell, pp. 6-11.

[120] Direct testimony of Bahman Pourtaherian, Attachment 5 errata; see also Cal Am response to the Public Advocates Office's Data Request SR-01 Q003 (Attachment 1).

[121] Attachment 2: Cal Am response to the Public Advocates Office's Data Request SR-01 Q002.

use.[122] The Public Advocates Office assessed utilizing three different options for water use data in determining percent water use by tier: 2015 – 2018, 2017 – 2018, and 2018 alone. The three options resulted in minimal differences in percent water use by tier. The Public Advocates Office utilized the water use data from 2018 to determine the percent use by tier at various tier breakpoints, due to the ease of using a smaller data set and the similarity of the results from the different data sets.

(b) Tier Breakpoints

Cal Am does not have a consistent methodology in calculating its proposed tier breakpoints. For example, the Tier 1 breakpoint is set at median winter use[123] for Sacramento and Meadowbrook,[124] while in districts in the Southern Division the Tier 1 breakpoint is set at mean winter use.[125] In Sacramento and Meadowbrook, the Tier 2 breakpoint is set at median summer use, while in Larkfield the Tier 2 breakpoint is set to capture 90% of use in the first two tiers.[126] In many cases, Cal Am does not provide any explanation for its tier breakpoints. Additionally, Cal Am does not provide justification for any of its proposed tier breakpoints.

For most districts, Cal Am's recommended tier breakpoints result in approximately 5% of usage in Tier 3, and 5% of usage in Tier 4, as opposed to Cal Am's current rate design which tends to have approximately 20% of usage in Tiers 3 and 4 combined. Tables 4-2 through 4-4 show Cal Am's current and proposed

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[122] Direct testimony of David Mitchell, "Conclusion" section of each Technical Memorandum.

[123] Cal Am's consultant M.Cubed defines winter as November through April (Direct testimony of David Mitchell, Technical Memorandum #1, p. 3.)

[124] Direct testimony of David Mitchell. p. 6.

[125] Direct testimony of David Mitchell, Technical Memorandum #3, p. 2.

[126] Direct testimony of David Mitchell, Technical Memorandum #2, p. 2.

percentage use by tier for each district. Cal Am recommends raising the Tier 2 breakpoint in all ratemaking areas except for Monterey Satellite and Sacramento.

Raising the Tier 2 breakpoints results in more revenue being collected in the lower tiers. All other things being equal, this results in higher rates at the lower tiers, to compensate for the loss of revenue in the upper (higher cost) tiers – thereby resulting in increased bills for customers with low to average water use. It also results in a muted conservation signal,[127] because consumption that previously would have fallen into Tier 3 is transferred to the lower cost Tier 2. As discussed above, Cal Am is proposing to increase meter charges in all but one of its districts. These increases to meter charges will already increase bills for customers with low to average water use, as well as provide a muted conservation signal. Cal Am provides no justification for its proposal to increase the Tier 2 breakpoints. The Commission should reject Cal Am's unjustified tier breakpoints that serve to increase bills for customers with low use and discourage conservation (in comparison to existing tier breakpoints).

Cal Am's consultant M.Cubed provides suggestions for determining tier breakpoints in Cal Am's Southern Division, in contrast to Cal Am's inconsistent and unsupported recommended tier breakpoints. M.Cubed suggests that Cal Am consider:

1. Using median rather than mean winter water use to set the Tier 1 breakpoints,[128] and
2. Setting the breakpoint between Tiers 2 and 3 to something lower than 90% of water use, stating that something like the 75th

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[127] A rate structure with a high conservation signal encourages customers to conserve water, generally by having water bills increase exponentially with increased use. A muted conservation signal provides less incentive for customers to conserve water, with a comparatively lower bill increase with increased use.

[128] Direct testimony of David Mitchell, Technical Memorandum #3, p. 16.

> percentile of summer water use would provide a reasonable allowance for outdoor water use for all but the very largest water users.[129]

Cal Am does not adopt M Cubed's suggestions. However, M.Cubed's recommendation for the Tier 1 breakpoints is reasonable for all districts, as this provides a baseline level of water use at the lowest tier. Using the mean instead of the median can cause the data to be skewed by a few large users. Using the median provides a better indicator of central tendencies of water use.[130]

M.Cubed's recommendation to set the Tier 2 breakpoint below the 90% level is also reasonable for all districts. For the seven districts that currently have four tiers, the average Tier 2 breakpoint is at approximately 78% of water use.[131] Because Cal Am will be recovering a higher percentage of revenue in meter charges, it is reasonable to lower the Tier 2 breakpoints for the existing levels. The Public Advocates Office recommends setting the Tier 2 breakpoint such that 75% of water use occurs in Tiers 1 and 2,[132] with one exception discussed below. This results in all Tier 2 breakpoints occurring above average use for each district.

Cal Am generally sets the Tier 3 breakpoints at a level such that 5% of water use occurs in Tier 4. The Public Advocates Office recommends standardizing the Tier 3 breakpoint at this level, with one exception discussed below.

The Commission should adopt the following general methodology for setting tier breakpoints for all districts, with two specific exceptions:

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[129] Direct testimony of David Mitchell, Technical Memorandum #3, p. 16.

[130] Direct testimony of David Mitchell, Technical Memorandum #3, p. 16.

[131] Average of current cumulative usage %s in Table 4-2 for districts with four tiers.

[132] That is, of the total water used in each district, 75% occurs in Tiers 1 and 2 for that district.

- Tier 1 breakpoint = median winter use[133]
- Tier 2 breakpoint = 75% of water use in first two tiers
- Tier 3 breakpoint = 95% of water use in first three tiers
- Tier 4 breakpoint (Monterey only) = 97% of water use in first four tiers

Exceptions

Duarte Tier 3 breakpoint

For Duarte, a Tier 3 breakpoint of 1300 CGLs[134] (1 CLG = 100 gallons) results in approximately 95% of water use occurring in Tier 4, but only 0.5% of billing records[135] in Tier 4. In all other districts, when 95% of usage occurs in Tiers 1 through 3, less than 98% of billing records occur in Tiers 1 through 3, with most districts around 95%. The difference suggests that there are likely just a few very high users that are skewing the usage data for Duarte. Duarte is the only district with this issue.

Therefore, instead of utilizing the general guideline above, the Tier 3 breakpoint for Duarte should be set such that approximately 99% of billing records fall within the first 3 tiers, with just 1% in the top tier. The resulting breakpoint is 700 CGLs. Only 1% of recorded bills would be impacted by lowering the Tier 3 breakpoint to 700 CGLs. 99% of bills would benefit from this lower breakpoint, as in this scenario more revenue is collected in Tier 4.[136]

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[133] Utilizing billing data from January through March.

[134] 1300 CGLs is approximately equal to 1,200 gallons per capita per day ("GPCD"), assuming 3.5 people per household. State average usage is approximately 200 GPCD.

[135] The water usage data provided by Cal Am has one row for each bill. The number referenced is the percent of recorded bills from 2018 for which there would be some amount of usage at Tier 4.

[136] This recommendation could slightly increase the volatility of revenue if users in top tier

(continued on next page)

Central Satellite Tier 2 breakpoint

For the Central Satellite district, a Tier 2 breakpoint of 150 CGLs results in approximately 75% of water use in Tiers 1 and 2. This breakpoint is approximately 3.5 times the median winter use (the Tier 1 breakpoint). For the recommended rate design parameters discussed above:[137]

a) No other district has a Tier 2 breakpoint more than 2.2 times its median winter use; and

b) In most districts, Tier 2 breakpoints are approximately 1.5 times winter use.

A Tier 2 breakpoint of 150 CGLs for the Central Satellite district is also higher than the existing Tier 2 breakpoint. Additionally, it results in approximately 85% of billing records collected in Tier 1 and 2, when most other districts have less than 75% of billing records collected in the first two tiers. If the Tier 2 breakpoint is lower than 150 CGLs, it will benefit the majority of customers, because Cal Am will collect more water at higher rates, allowing lower tiers to have lower rates. Therefore, it is more reasonable to set the Tier 2 breakpoint to allow 75% of billing records to occur in Tiers 1 and 2, instead of 75% of use to occur within these tiers. This results in a Tier 2 breakpoint of 105 CGLs.

conserve more due to higher bills. However, these users have already been experiencing high bills in the past due to their high levels of consumption, yet continued to consume at this exceptionally high rate in 2018. This suggests that these users may not be as responsive to price signals, in which case revenue would not be impacted by this change.

[137] That is, when Tier 2 breakpoints are set such that 75% of use occurs in the first two tiers.

3) Number of Tiers

Meadowbrook and Sacramento

Cal Am proposes that the majority of its districts have a four-tiered rate structures. The exceptions are Meadowbrook and Sacramento, for which Cal Am proposes three-tiered rate structures. There is no compelling reason to keep Meadowbrook and Sacramento on three-tiered rate structures when all other districts are on a four-tiered rate structure.

Cal Am proposes (and the Public Advocates Office does not oppose) increasing the meter charges for Sacramento district such that it collects 10% more revenue than the current meter charges. This serves to raise customers' bills for low-use customers, and mute the conservation signal of tiered rates.

The increase in bills for low-use customers can be mitigated by moving to a four-tiered structure for commodity charges. A four-tiered rate structure will provide additional conservation incentives, as well as allow for lower bills for low-use customers compared to a three-tier rate structure. Additionally, with the recommended tier breakpoints, 97% to 98% of bills and 95% of all usage will be in first three tiers. Therefore, only a small portion of customers will experience rates in the fourth tier. Lastly, at the Sacramento Public Participation Hearing ("PPH"), customers expressed concern about the highest tier starting too low. Adding an additional tier shifts the breakpoint for the highest tier to 1.6 times higher than the existing breakpoint, and almost three times higher than that which Cal Am proposes.

Monterey

Cal Am proposes changing the Monterey County district from a five-tiered rate structure to a four-tiered rate structure. In addition, Cal Am proposes reducing the meter rate ratios (as discussed above) and reducing the step-up in commodity rates (discussed below). The Public Advocates Office disagrees with

these two Cal Am proposals. Each of Cal Am's proposed changes serve to mute conservation signals and increase the bills of low and average water users.

Cal Am claims that it strives to "[a]dhere to the principle of gradualism, giving residential customers the opportunity to adjust to new price signals from the rate design,"[138] but it is proposing to change three core aspects of rate design in Monterey all at once. Cal Am justifies this request by stating that "the desalination plant is expected to be completed in late 2021."[139] Assuming this schedule is achieved, Cal Am's proposed changes in rate design would take effect nearly a year before the desalination plant would be available. It is not prudent to authorize Cal Am to change Monterey County from a five-tiered to four-tiered rate structure while the desalination plant is not complete. The Commission should retain the existing five-tiered system in Monterey County district.

Tables 4-2 through 4-4 summarize the Public Advocates Office's recommendations for tier breakpoints for each district, compared to the current condition and Cal Am's proposals.

Table 4-2. Northern Division

Sacramento

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	52.4	69.00%	56.19%	37.4	50.90%	38.70%	37	50.21%	29.08%
2	104.8	89.70%	85.18%	134.9	90.90%	91.66%	74	75.46%	68.52%
3	244.2	98.20%	99.27%	190.4	95.70%	96.78%	173	95.06%	95.86%
4		100.10%	100.00%		100.00%	100.00%		100.00%	100.00%

[138] Direct testimony of Bahman Pourtaherian, p. 41

[139] Direct testimony of Bahman Pourtaherian, p. 44.

Meadowbrook

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	112	73.20%	54.79%	34	51.70%	33.56%	67	45.42%	28.51%
2		100.00%	100.00%	58	77.40%	67.57%	150	75.05%	72.09%
3					100.00%	100.00%	408	95.05%	97.11%
4								100.00%	100.00%

Larkfield

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	52.4	69.00%	56.19%	37.4	50.90%	38.70%	37	50.21%	29.08%
2	104.8	89.70%	85.18%	134.9	90.90%	91.66%	74	75.46%	68.52%
3	244.2	98.20%	99.27%	190.4	95.70%	96.78%	173	95.06%	95.86%
4		100.10%	100.00%		100.00%	100.00%		100.00%	100.00%

Table 4-3. Central Division

Monterey

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	29.9	60.80%	50.39%	29.9	62.90%	50.39%	28	58.99%	47.87%
2	59.8	84.20%	84.81%	59.8	85.40%	84.81%	43	75.31%	70.62%
3	104.7	93.40%	96.67%	114.3	94.80%	97.41%	113	94.73%	97.36%
4	172	96.80%	99.15%		100.00%	100.00%	162	96.91%	99.01%
5		100.10%	100.00%					100.00%	100.00%

Central Satellite

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	59.8	47.60%	54.85%	70.6	49.76%	61.57%	43	39.51%	40.57%
2	134.6	70.60%	82.05%	111.7	73.60%	77.02%	105	75.11%	65.61%
3	785.4	98.50%	99.60%	458.2	97.01%	98.08%	445	94.92%	97.86%
4		100.00%	100.00%		100.00%	100.00%		100.00%	100.00%

Table 4-4. Southern Division

San Diego

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	59.8	64.12%	53.22%	59.7	66.80%	53.22%	52	63.40%	44.77%
2	112.2	86.46%	88.19%	121.2	89.20%	89.98%	71	75.36%	66.67%
3	224.4	96.46%	98.31%	171.7	94.70%	95.77%	168	94.99%	95.74%
4		99.46%	100.00%		100.00%	100.00%		100.00%	100.00%

Ventura

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	90	50.68%	48.48%	96.4	60.10%	44.46%	82	55.12%	40.27%
2	180	77.03%	90.16%	237.9	88.70%	80.40%	136	74.90%	68.44%
3	449	94.26%	96.25%	335.4	94.10%	98.49%	323	94.99%	95.97%
4		99.99%			100.00%			100.00%	100.00%

1 LAC – Baldwin Hills

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	82.2	59.00%	46.39%	86.1	64.80%	51.17%	62	52.28%	35.09%
2	134.5	79.49%	74.40%	182.6	89.50%	88.23%	108	74.72%	64.13%
3	299	97.89%	97.55%	248	94.70%	95.48%	238	95.03%	94.51%
4		101.16%	100.00%		100.00%	100.00%		100.00%	100.00%

2 LAC - Duarte

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	82.2	49.08%	49.14%	95.5	58.30%	58.35%	67	47.06%	38.25%
2	171.9	72.59%	85.57%	685.5	90.00%	98.63%	128	67.80%	75.46%
3	1271.4	93.59%	99.39%	1337	95.10%	99.45%	700	90.64%	98.67%
4		99.14%	100.00%		100.00%	100.00%		100.00%	100.00%

3 LAC - San Marino

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	97.2	48.50%	46.08%	116.4	59.10%	56.51%	89	50.26%	41.87%
2	209.4	74.00%	80.76%	394.9	89.80%	94.40%	190	74.71%	78.11%
3	560.9	92.50%	97.52%	602.9	95.00%	97.94%	560	94.79%	97.52%
4		98.00%	100.00%	N/A	100.00%	100.00%		100.00%	100.00%

(c) Step-Ups in Commodity Rates

Step-ups in commodity rates are the difference between the rates at each tier in the tiered-rate system. Generally, larger differences in the rates between the tiers results in a stronger conservation signal and lower bills for low water use customers. Cal Am proposes keeping the Tier 2 rates at SQR[140] for each district.[141] Other Tiers are expressed as a percent of the SQR. For all districts except Ventura, Cal Am proposes narrowing the distance between the Tier 1 and Tier 2 rates.[142] The step-ups in commodity rates differ for each district. Cal Am does not provide an explanation or justification for its proposed step-ups in commodity rates.

Cal Am's consultant M.Cubed recommends normalizing the different percentage step-ups in commodity rates, so they are the same across all districts, unless there is a strong reason for not doing so.[143] M.Cubed recommends "something like 25-50 percent going from Tier 1 to Tier 2; 50-100 percent going from Tier 2 to Tier 3; and 100-150 percent going from Tier 3 to Tier 4."[144] Cal Am does not provide any reason for not normalizing the step-ups in commodity rates as recommended by its consultant. The only district where there is a strong reason for a different step-up is Monterey County.

In the RO Model, Cal Am provides a note that the percent of revenue collected at Tier 4 should not exceed 10% of the total projected commodity charge

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[140] The SQR is the rate that would be charged if all units of water were priced equally. This is calculated as: Total revenue to be collected from commodity rates ÷ the total estimated units of demand.

[141] Direct testimony of Bahman Pourtaherian, Attachment 5 errata.

[142] Direct testimony of Bahman Pourtaherian, Attachment 5 errata.

[143] Direct testimony of David Mitchell, Technical Memorandum #3, p. 16.

[144] Direct testimony of David Mitchell, Technical Memorandum #3, p. 16.

revenue. However, Cal Am fails to provide any explanation or justification for this constraint in its testimony.

The Commission should adhere to M.Cubed's recommendation for step-ups in commodity rates. For all districts except Monterey (which should retain a 5-tier rate design) and Duarte, the Commission should utilize the following step-ups in commodity rates:

- Tier 1 = 60% SQR
- Tier 2 = 90% SQR
- Tier 3 = 180% SQR
- Tier 4 = goal-seek to determine the % of SQR necessary to maintain revenue neutrality

Any time a component of the revenue requirement is changed, the Tier 4 percent needs to change accordingly.

The above step-ups: 1) follow the recommended parameters of Cal Am's consultant, 2) maintain a strong conservation signal to customers, 3) and provide a relatively low Tier 1 rate to help off-set the increased meter charges discussed above (increased meter charges generally increase bills for low-use customers).[145]

For Duarte, when utilizing the above step-ups in commodity rates (and the tier breakpoints discussed above), goal-seeking for Tier 4 rates that results in revenue-neutrality provides a Tier 4 rate of 128.04% of the SQR. This is lower than the Tier 3 rate. It is therefore necessary to lower the Tier 3 commodity charge step-up to maintain a rate structure with increasing tiers at each step. A

[145] The direct testimony of David Mitchell states multiple times: "It is a general result that shifting revenue recovery from the meter charge to the commodity charge will benefit smaller water users and harm larger water users while shifting revenue recovery from the commodity charge to the meter charge will have the opposite effect." (For example, in Technical Memorandum #2, p. 5.)

Tier 3 rate of 151% of SQR provides a Tier 4 rate of 200% of SQR. This is a reasonable balance. The Commission should adopt this exception for Duarte.

For the Monterey County district, the existing step-ups in commodity rates are significantly greater than all other districts.[146] As discussed above, it remains appropriate to have more steeply tiered rates in Monterey. The existing step-ups for Monterey should not change and should remain as follows:

- Tier 1 = 1.000
- Tier 2 = 1.500
- Tier 3 = 3.500
- Tier 4 = 6.500
- Tier 5 = 8.000

Cal Am's proposal to move to a less steeply-tiered rate structure would: 1) decrease the conservation signal in a district where water supply challenges still exist, and 2) increase the bills of low water use customers. Therefore, the Commission should not authorize any changes to the Monterey commodity charge step-ups, and should instead authorize that the existing step-ups remain in place.

4) Bill Impacts

The Public Advocates Office assessed bill impacts using the median water use for that district. Mean water use can be skewed by very high users, making "mean water use a poor indicator of central tendency."[147] Median water use can provide a more accurate picture of the average customer. For all districts, the Public Advocates Office recommendations result in lower bills for customers with median water use than Cal Am's proposals. It is notable that for many districts,

[146] Direct testimony of Bahman Pourtaherian, Attachment 5 errata.

[147] Direct testimony of David Mitchell, Technical Memorandum #8, p. 17.

Cal Am proposed a lower revenue requirement than the Public Advocates Office, due to Cal Am under-forecasting expenses[148] and moving charges out of revenue requirement and into surcharges.[149] Additionally, Cal Am over-forecasts its demand, as discussed in Chapter 2 herein, which generally serves to decrease rates ($/ccf) because the revenue requirement is spread over a larger quantity of water sold. The Public Advocates Office's rate design recommendations off-set its higher revenue requirement and lower demand forecast to produce lower bills for median water use than Cal Am's proposal.

Tables 4-5 through 4-7 and Figure 4-1 through 4-3 show the bill implications for a customer using a median amount of water in each district. Attachment 5 provides graphs showing the commodity rates and tier step-ups for each district.

[148] See direct testimony of the Public Advocates Office's witness Anusha Nagesh.

[149] See direct testimony of the Public Advocates Office's witness Jayne Parker.

Table 4-5. Northern Division Bill Impacts

	Sacramento	Larkfield	Meadowbrook
Median Water Use (CGLs)	64.00	52.36	97.24
Existing Rates	$38.47	$65.33	$38.93
Cal Am Proposed Rates	$42.00	$63.78	$43.15
Cal PA Recommended Rates	$37.43	$51.27	$33.22

Figure 4-1. Northern Division Bill Impacts

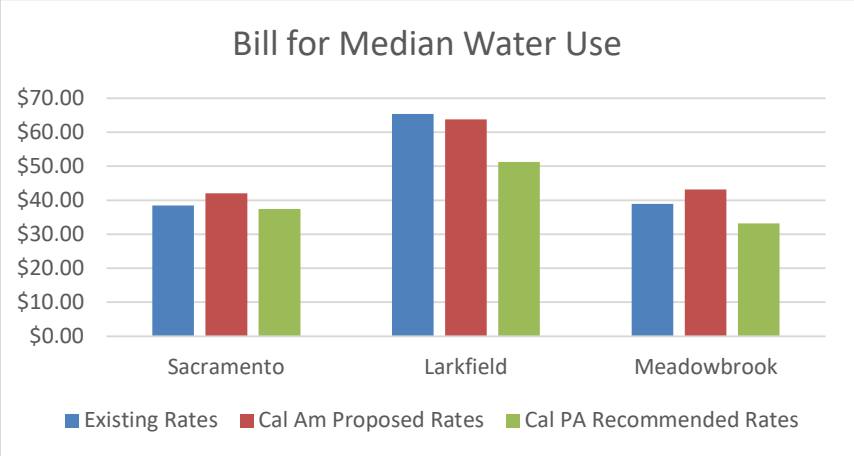
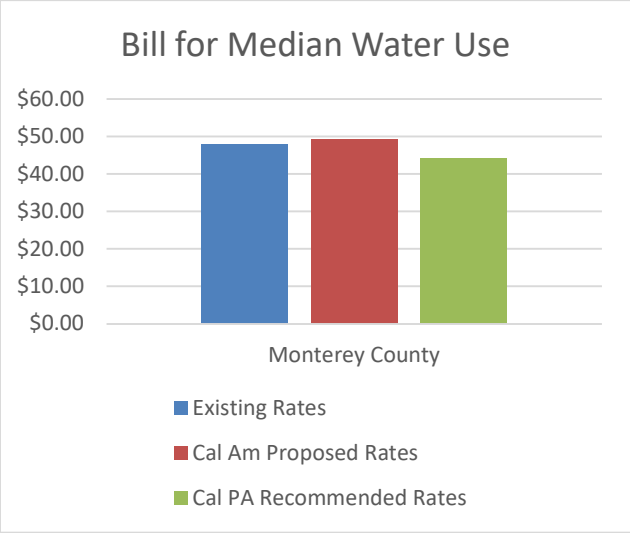


Table 4-6. Central Division Bill Impacts[150]

	Monterey Main
Median Water Use (CGLs)	29.17
Existing Rates	$47.84
Cal Am Proposed Rates	$49.29
Cal PA Recommended Rates	$44.13

Figure 4-2. Central Division Bill Impacts

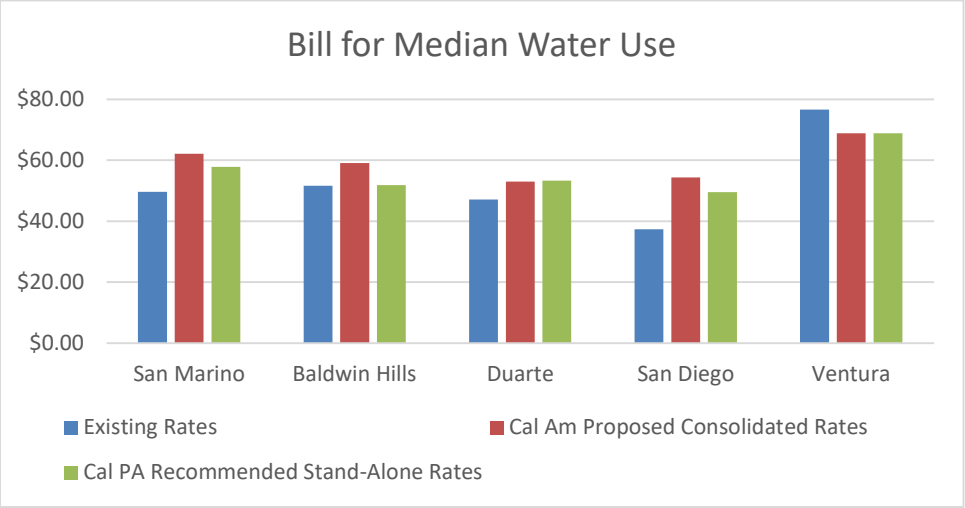


[150] The RO Model does not provide the option to vary the tier breakpoints and water use by tier in Monterey Satellite system and Chualar while maintaining revenue neutrality. It is therefore not possible to calculate the bill impacts of shifting the tier breakpoints for these two districts.

Table 4-7. Southern Division Bill Impacts

	San Marino	Baldwin Hills	Duarte	San Diego	Ventura
Median Water Use (CGLs)	104.7	82.3	82.3	52.4	97.2
Existing Rates	$49.68	$51.66	$47.09	$37.35	$76.65
Cal Am Proposed Consolidated Rates	$62.11	$59.05	$52.97	$54.37	$68.88
Cal PA Recommended Stand-Alone Rates	$57.85	$51.87	$53.36	$49.56	$68.81

Figure 4-3. Southern Division Bill Impacts



5) Low Income Ratepayer Assistance Program

Cal Am has an existing Low Income Ratepayer Assistance ("LIRA") program that provides LIRA customers with 1) a 20% discount on meter charges; and 2) a 20% discount on commodity charges for all usage in Tiers 1 and 2.[151] Cal Am also participates in data-sharing with electric utilities so that customers

[151] Direct testimony of Jeffrey T. Linam, p. 79.

who have been approved for low income discounts at an Energy IOU will automatically be enrolled in the Water LIRA discount program.

The Commission should authorize Cal Am to continue its existing LIRA program. There are two open rulemakings at the CPUC addressing affordability and low-income customer discounts.[152] The State Water Resources Control Board ("SWRCB") is also exploring affordability and water LIRA programs at the State level (related to Assembly Bill 401). It is therefore prudent for the Commission to await the outcome of these open CPUC rulemakings and the SWRCB state-wide water LIRA activity before making changes to Cal Am's LIRA program.

D. CONCLUSION

The Commission should adopt the following for meter charges:

- Meter charges to collect 30% of the revenue requirement for all districts except Meadowbrook, San Diego, and Ventura.
- Meter charges to collect 40% of the revenue requirement for Meadowbrook.
- Meter charges to collect 20% of the revenue requirement for San Diego and Ventura.
- The standard residential meter ratios for all districts except Monterey.

[152] R.17-06-024 ("OIR Evaluating the Commission's 2010 Water Action Plan Objective of Achieving Consistency between Class A Water Utilities' Low-Income Rate Assistance Programs, Providing Rate Assistance to All Low-Income Customers of Investor-Owned Water Utilities, and Affordability") and R.18-07-006 ("OIR to Establish a Framework and Processes for Assessing the Affordability of Utility Service").

- Residential meter ratios in Monterey that close the gap by 50% between the current ratios and the standard residential meter ratios.

The Commission should adopt the following for tier breakpoints and commodity rates:

- Authorize a five-tiered rate structure for Monterey County. For all districts, the Commission should authorize a four-tier rate structure.
- Adopt the following general methodology for setting tier breakpoints for all districts, with specific exceptions for the Duarte district and Central Satellite district:
    - Tier 1 breakpoint = median winter use
    - Tier 2 breakpoint = 75% of water use in first two tiers
    - Tier 3 breakpoint = 95% of water use in first three tiers
    - Tier 4 breakpoint (Monterey only) = 97% of water use in first four tiers
    - Duarte Tier 3 breakpoint = 700 CGLs
    - Central Satellite Tier 2 breakpoint = 105 CGLs
    - For all districts except Duarte and Monterey, the Commission should utilize the following step-ups in commodity rates:
        - Tier 1 = 60% of SQR
        - Tier 2 = 90% of SQR
        - Tier 3 = 180% of SQR or greater
        - Tier 4 = goal-seek to determine the % of SQR necessary to maintain revenue neutrality
    - For Duarte, the Commission should utilize the following step-ups in commodity rates:

- Tier 1 = 60% of SQR
- Tier 2 = 90% of SQR
- Tier 3 = 151% of SQR
- Tier 4 = 200% of SQR.

- For Monterey County, the Commission should authorize the existing step-ups in commodity rates remain in place, as follows:
  - Tier 1 = 1.000
  - Tier 2 = 1.500
  - Tier 3 = 3.500
  - Tier 4 = 6.500
  - Tier 5 = 8.000

The Commission should authorize Cal Am to continue its existing LIRA program.

CHAPTER 5: SPECIAL REQUESTS

A. INTRODUCTION

This chapter provides an analysis and recommendations to Cal Am's Special Requests #1 (Consolidation of Southern Division), #4 (Leak Adjustment Policy), #5 (Modification of Existing 15% Cap on WRAM Amortization), #7 (Alignment and Simplification of District Specific Tariffs), #8 (Meadowbrook Rate Design Consolidation Deferral), #12 (Annual Consumption Adjustment Mechanism), #15 (Proposed Operational Tariff Modifications), and #17 (Monterey Wastewater High Cost Fund). The Public Advocates Office performed a review of Cal Am's testimony and supporting work papers for each of these special requests.

B. SUMMARY OF RECOMMENDATIONS

1. Special Request #1 – Consolidation of Southern Division

If the Commission authorizes consolidation of revenue requirements in the Southern Division, it should:

- Authorize the consolidation of no more than the revenue requirements and tariff pricing that Cal Am proposes.
- Not authorize identical tier breakpoints across the entire Southern Division, as Cal Am proposes.
- Authorize tier breakpoints based on the specific consumption profile of each district.
- Authorize a rate design that does not significantly increase bills for median water use for any district, when comparing "apples to apples" (that is, keeping tier breakpoints and commodity charge

step-ups constant between the stand-alone and consolidated comparison scenarios).

- Authorize a rate design that maintains strong conservation signals in each district.
- Impute a savings of at least 0.761% on the consolidated Southern Division revenue requirement.

2. Special Request #4 – Leak Adjustment Policy

- The Commission should deny this special request.

3. Special Request #5 – Modification of Existing 15% Cap on WRAM Amortization

- The Commission should deny this special request.

4. Special Request #7 – Alignment and Simplification of District Specific Tariffs

- The Public Advocates Office does not oppose this request; but
- The Commission should only authorize this request for the Southern Division if it authorizes consolidation of Southern Division revenue requirements.

5. Special Request #8 – Meadowbrook Rate Design Consolidation Deferral

- The Commission should only authorize this request if it authorizes a rate design structure for Meadowbrook that prioritizes reducing consumption, as recommended in Chapter 4 of this testimony.

6. Special Request #12 – Annual Consumption Adjustment Mechanism

- The Commission should deny this special request.

- The Commission should eliminate the pilot Annual Consumption Adjustment Mechanism in Monterey.

7. Special Request #15 – Proposed Operational Tariff Modifications

- For any authorized tariff modifications that result in collection of revenues, the Commission should require Cal Am to report the revenues in recorded data in step filings, in GRCs, and any other reports of recorded revenue.
- The Commission should deny the rule modifications requested for Rule 10 and Rule 18 that limit customers' ability to collect refunds for billing errors when the date of the billing error is known.
- The Commission should deny the requested tariff modification to Construction Meters that requires customers to pay outstanding balances in full before the customer's deposit is returned. The Commission should allow customers to deduct outstanding balances from deposits.

8. Special Request #17 – Monterey Wastewater High Cost Fund

- The Commission should deny this special request.

C. DISCUSSION

1) Special Request #1 – Consolidation of Southern Division

In Special Request #1, Cal Am seeks to consolidate its Los Angeles County, Ventura County, and San Diego County districts to create a single Southern California Division tariff area. Cal Am proposes a graduated approach to full consolidation of the Southern Division. If the Commission authorizes consolidation of revenue requirements in the Southern Division, it: a) should impute a savings of 0.761% or more on the Southern Division consolidated

revenue requirement; and b) should not authorize identical tier breakpoints for the individual districts within the Southern Division.

Cal Am proposes, for ratemaking purposes, a multi-rate case approach to the combination of all revenue requirements and costs of service for the Los Angeles County,[153] San Diego County, and Ventura County districts. This structure would produce a cost of service and revenue requirement for the entire Southern Division. In the instant proceeding, Cal Am proposes:[154]

a) To consolidate all fixed costs for the Southern Division and a portion of the variable costs in San Diego County, Ventura County, and Baldwin Hills districts; specifically:

    a. To consolidate 100% of the fixed costs in all districts; and

    b. To consolidate 100% of the variable costs in the San Marino and Duarte districts, 45% of the variable costs in the San Diego County and Baldwin Hills districts, and 60% of the variable costs in the Ventura County district.

b) The same rate design for all service areas for most aspects of the cost of service and revenue requirements. The tariffs would have identical meter charges, tier breakpoints, and step-ups in commodity rates. A "quantity rate adder" would account for differences in certain variable costs such as a percentage of purchased water in San Diego, Ventura, and Baldwin Hills.

Usage and Tier Breakpoints

Cal Am notes that "[t]here is a significant difference in the amount of water used by residential customers, both on average and in total, in the five service

[153] The Los Angeles County District consists of Baldwin Hills, Duarte, and San Marino.

[154] Direct testimony of Jeffrey T. Linam, pp. 31-32.

areas."[155] Table 5-1 shows the mean and median winter water use, as well as the year-round mean and median water use, in 2018 (a non-drought year) for each of the districts in the proposed Southern Division.

Table 5-1. Southern Division Water Use in 2018, CGLs[156]

	San Diego	Ventura	Baldwin Hills	San Marino	Duarte
Winter Median	52.4	82.3	62.0	89.8	67.3
Winter Mean	59.9	100.2	80.9	119.9	98.9
Year-round Median	52.4	97.2	82.3	104.7	82.3
Year-Round Mean	66.4	121.1	102.7	147.3	119.2

The differences are indeed significant, with mean use in San Marino over twice the mean use in San Diego. Despite these significant differences, Cal Am proposes utilizing the same tier breakpoints across the entire proposed Southern Division. Table 5-2 compares existing tier breakpoints to Cal Am's proposed tier breakpoints for Southern Division Consolidation.[157]

[155] Direct testimony of Jeffrey T. Linam, p. 32, lines 21-22.

[156] Attachment 2: Cal Am response to the Public Advocate Office's Data Request SR 01, Q001. Winter water use was calculated by the Public Advocates Office using data from January – March, 2018.

[157] Direct testimony of Bahman Pourtaherian, Attachment 5 errata.

Table 5-2. Proposed and Existing Tier Breakpoints (CGLs).

	Proposed Consolidated	Existing San Diego	Existing Ventura	Existing Baldwin Hills	Existing San Marino	Existing Duarte
Tier 1	95.1	59.8	90	82.2	97.2	82.2
Tier 2	135	112.2	180	134.5	209.4	171.9
Tier 3	298	224.4	449	299	560.9	1271.4

In its Northern Division, where consumption in Meadowbrook far exceeds consumption in Sacramento, Cal Am requests delaying moving Meadowbrook to Sacramento rates (as discussed below in Special Request #8). Instead of setting identical tier breakpoints in two districts with differing consumption patterns, Cal Am proposes tier breakpoints "set based on the specific consumption profile of our Meadowbrook District."[158]

Given the significant difference in consumption profiles across the districts in the proposed Southern Division, it is not appropriate to utilize the same tier breakpoints across the entire Southern Division. Doing so would mute conservation signals for districts that currently have lower usage. For example, in San Diego, Cal Am's proposed tier breakpoints result in approximately 85% of water use occurring in Tier 1.[159] Cal Am's proposal could also result in unexpectedly large bills for users with use just above the average use in districts that currently have higher usage (see below for a discussion of customer bills).

[158] Direct testimony of Jeffrey T. Linam, p. 78, lines 6-7.

[159] When utilizing the 2018 usage data provided in Cal Am response to the Public Advocates Office's Data Request SR-01 Q001.

It is still possible to consolidate some ratemaking aspects of the districts in the Southern Division, while maintaining separate tier breakpoints and possibly separate tariffs for the different districts. For example, the Central Division is consolidated for revenue requirement purposes but has three separate tariff areas — the Monterey Central-Satellite District and Chualar have separate tariffs from the Monterey Main District.[160] Similarly, the three Los Angeles Districts currently have the same fixed monthly service charge but have separate variable rates and different tier breakpoints.[161]

Consolidating some or all ratemaking aspects in the proposed Southern Division but maintaining separate tier breakpoints offers many of the benefits of consolidation, while maintaining appropriate conservation signals for each district. Additionally, if the Commission determines that further consolidation is appropriate in future rate cases, it could adopt a strategy similar to what Cal Am proposes for Meadowbrook. That is, the Commission could set tariffs and tier breakpoints to encourage reductions in consumption in higher use districts *before* moving to a full rate design consolidation.

If the Commission authorizes consolidation for Cal Am's proposed Southern Division in the instant proceeding, it should *at a maximum* authorize consolidation of the revenue requirements and tariff pricing that Cal Am proposes. The Commission should not make tier breakpoints consistent across the entire Southern Division. Instead, the Commission should set tier breakpoints based on the specific consumption profile of each district. Chapter 3 of this testimony provides recommendations for tier breakpoints for each district in the Southern Division. Table 5-3 provides a comparison of Cal Am's proposed tier breakpoints, usage per tier (based on 2018 data), and number of recorded bills per tier (based

[160] Direct testimony of Jeffrey T. Linam, p. 13, lines 15-17.

[161] Direct testimony of Jeffrey T. Linam, p. 31.

on 2018 data) to the Public Advocates Office recommendations for the Southern Division.

Table 5-3. Comparison of Cal Am and Public Advocates Office Proposed Tier Breakpoints[162] [163]

San Diego

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	59.8	64.12%	53.22%	95.1	84.60%	80.64%	52	63.40%	44.77%
2	112.2	86.46%	88.19%	135	92.08%	92.57%	71	75.36%	66.67%
3	224.4	96.46%	98.31%	298	98.65%	99.29%	168	94.99%	95.74%
4		99.46%	100.00%		100.00%	100.00%		100.00%	100.00%

Ventura

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	90	50.68%	48.48%	95.1	48.36%	61.01%	82	55.12%	40.27%
2	180	77.03%	90.16%	135	68.35%	74.64%	136	74.90%	68.44%
3	449	94.26%	96.25%	298	94.73%	94.04%	323	94.99%	95.97%
4		99.99%			100.00%	100.00%		100.00%	100.00%

[162] Calculated utilizing the 2018 usage data provided in Cal Am response to the Public Advocates Office Data Request SR4-01, Q001 (Attachment 2).

[163] Current Cumulative Usage amounts provided by Cal Am. Current Cumulative % of 2018 Recorded Bills calculated by Cal PA. Cal Am proposed % usage provided by Cal Am. Cal Am proposed Cumulative % of 2018 Recorded Bills calculated by Cal PA

LAC – Baldwin Hills

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	82.2	59.00%	46.39%	95.1	69.75%	56.05%	62	52.28%	35.09%
2	134.5	79.49%	74.40%	135	82.59%	76.70%	108	74.72%	64.13%
3	299	97.89%	97.55%	298	97.16%	97.54%	238	95.03%	94.51%
4		101.16%	100.00%		100.00%	100.00%		100.00%	100.00%

LAC - Duarte

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	82.2	49.08%	49.14%	95.1	58.79%	58.35%	67	47.06%	38.25%
2	171.9	72.59%	85.57%	135	69.22%	77.92%	128	67.80%	75.46%
3	1271.4	93.59%	99.39%	298	82.93%	95.52%	700	90.64%	98.67%
4		99.14%	100.00%		100.00%	100.00%		100.00%	100.00%

LAC - San Marino

	Current			*Cal Am Proposed*			*Cal PA Recommended*		
Tier	Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Proposed Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills	Recommended Tier Endpoint (CGLs)	Cumulative % Usage	Cumulative % of 2018 Recorded Bills
1	97.2	48.50%	46.08%	95.1	52.15%	45.87%	89	50.26%	41.87%
2	209.4	74.00%	80.76%	135	64.15%	64.72%	190	74.71%	78.11%
3	560.9	92.50%	97.52%	298	85.67%	89.98%	560	94.79%	97.52%
4		98.00%	100.00%		100.00%	100.00%		100.00%	100.00%

While it is possible in practice to consolidate some or all of the revenue requirements and tariffs in the Southern Division and keep tier breakpoints tailored to each district's usage patterns, Cal Am's RO model does not allow this

input scenario. For the consolidated scenario, Cal Am's RO Model does not afford the ability to assign individual tier breakpoints to each district. Therefore, it is difficult to assess scenarios for consolidation with differing SQRs. However, it is possible to obtain one SQR for the Southern Division, use the purchased water adders that Cal Am recommends, and consolidation as Cal Am proposes, with differing tier breakpoints. The Public Advocates Office examined this scenario, discussed in further detail later in this section.

As detailed in Cal Am's testimony, there are many advantages to consolidation. One significant advantage that applies across districts is risk consolidation. Consolidating water districts into one larger division can help mitigate risks, such as uncertainties in future water safety standards and unexpected catastrophic events.

The consolidation of risk and other potential advantages warrant some amount of increased cost to any given district. Customers whose rates go up in the short-term may in the future receive benefit from the risk consolidation. (If, for example, a new water safety standard impacts one district more significantly than its neighbors.) However, these potential benefits should not come at the expense of appropriate rate design for the water use of each district, nor should they result in significantly increased bills for the majority of users.

Bill Impacts

Regarding impacts to customer bills, Cal Am states:

> In this application, the proposed Southern Division Consolidation results in lower average residential customer bills in all five districts as compared to stand-alone or non-consolidated rates.[164]

Cal Am provides a table comparing the bill for a residential customer with average use for each district in the Southern Division for its stand-alone and

[164] Direct testimony of Jeffrey T. Linam, pp. 14, 22.

consolidated proposals.[165] While the bill of a customer with average use for each district may in fact be lower for the consolidation proposal, the full effects of the proposal are not apparent simply by examining the bill of a customer with average water use, for the one specific scenario that Cal Am proposes for rate design.

Take for example a customer in the San Marino District who uses just 10% more water than the average customer. This customer would fall into the lowest 70% of use (when looking at the number of billing records at each level of use).[166] Under Cal Am's proposed rate design, this customer's bill would be 29% higher in the consolidated scenario than the stand-alone scenario.[167]

It is also important to note that there are many variables in rate design, and Cal Am is not holding any of them constant in its comparative analysis of its stand-alone vs. consolidated proposals. One important factor that Cal Am does not hold constant when comparing its stand-alone proposal to its consolidated proposals is the step-up in commodity charge.[168] While it is not always possible to have the step-up in commodity charges held *exactly* constant when other variables change, it is possible to keep them similar. It is also possible (as the Public Advocates Office recommends in Chapter 4), to hold the Tier 1 and Tier 2 step-up in commodity charges constant, and change the step-ups in the higher tiers (which often wind up very similar when holding the first two constant).

In Cal Am's stand-alone proposal, it sets Tier 1 rates at 85% - 90% of the SQR, while in its consolidated proposal it sets the Tier 1 rate at 70% of the

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[165] Direct testimony of Jeffrey T. Linam, p. 14.

[166] Calculated utilizing the 2018 usage data provided in Cal Am response to the Public Advocates Office Data Request SR4-01, Q001 (provided herein as Attachment 2).

[167] Utilizing the rates in the direct testimony of Bahman Pourtaherian, Attachment 5 errata.

[168] Direct testimony of Bahman Pourtaherian, Attachment 5 errata.

SQR.[169] This flattens out the tiers for the stand-alone proposal compared to the consolidated proposal, providing a muted conservation signal. It also artificially raises the bill for a low water user for the stand-alone proposal, as compared to the consolidated proposal.

Looking at a stand-alone rate design with a Tier 1 rate at the same 70% of the SQR as the consolidated proposal (comparing "apples to apples") provides a different picture than the one Cal Am presents. In this case, the bill of an average water-user in the San Diego District would not be lower for the consolidated scenario. Instead, the customer's bill would be 11% higher.[170] A user whose bill is in the 25th percentile of use, or 33 CGL[171] (which happens to correspond to a two-person household using 55 gallons per person per day),[172] would experience a 17% higher bill in the consolidated scenario than the stand-alone scenario.[173] It's also important to note that in *both* scenarios these users would experience a significantly higher bill than existing, due to the increase in meter charges (discussed in Chapter 4). The total bill increases for a user in the 25th percentile of water use in the San Diego District would be 33% for consolidated and 14% for stand-alone.[174]

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[169] Direct testimony of Bahman Pourtaherian, Attachment 5 errata.

[170] Calculated utilizing the rates provided in the direct testimony of Bahman Pourtaherian, Attachment 5 errata, with Tier 1 at 70% of SQR.

[171] Calculated utilizing the 2018 usage data provided in Cal Am response to the Public Advocates Office Data Request SR4-01, Q001 (provided herein as Attachment 2).

[172] 2 people x 55 gallons/day x 30 days = 3300 gallons = 33 CGL.

[173] Calculated utilizing the rates provided in the direct testimony of Bahman Pourtaherian, Attachment 5 errata, with Tier 1 at 70% SQR. Existing rates as provided in the direct testimony of Bahman Pourtaherian, Attachment 5 errata.

[174] Calculated utilizing the rates provided in the direct testimony of Bahman Pourtaherian, Attachment 5 errata, with Tier 1 at 70% SQR.

Ultimately, Cal Am's table showing that the average bill for all five districts would not increase under consolidation[175] — for the specific rate design scenarios it proposes — does not tell the whole story.

Recommended Changes to Consolidation Proposal

When comparing Cal Am's consolidation proposal to its stand-alone proposal, it is critical to compare "apples to apples" but holding at least some variables constant in the comparison. The Public Advocates Office examined a scenario where the proposed tier breakpoints and commodity charge step-ups for the first three tiers are identical for stand-alone and consolidated, utilizing the tier breakpoints and commodity charge step-ups recommended in Chapter 4. The Public Advocates Office assessed bill impacts for median water use. Mean water use can be skewed by very high users, making "mean water use a poor indicator of central tendency."[176] Median water use can provide a more accurate picture of the average customer. Under the above scenario:

- Consolidation results in *higher* bills for median water use for all districts except Duarte and Ventura, which each see less than a 1% reduction in the consolidated scenario.
- Median water users in three of the five districts would incur very similar bills under consolidated and stand-alone. However, for Baldwin Hills customers, the bill for median water use for the consolidated scenario would be 14.3% higher than the stand-alone scenario. For San Diego, the bill for median water use would be 8.7% higher for the consolidated scenario.

[175] Direct testimony of Jeffrey T. Linam at p. 14.

[176] Direct testimony of David Mitchell, Technical Memorandum #8, p.17.

- The bill for median water use in each district under consolidation is approximately the same as the bill for median water use in Cal Am's consolidated proposal. However, the above scenario maintains district-specific conservation incentives, which Cal Am's proposal fails to provide.

- The bill for median water use in each district under consolidation is less than the bill in Cal Am's consolidated proposal, with the exception of Baldwin Hills, for which the bill for median water use is 2.5% more in the above scenario than in Cal Am's proposal.

Table 5-4 provides a bill comparison of stand-alone to consolidated under this "apples to apples" scenario, as well as a comparison with Cal Am's proposal.

Table 5-4. Bill Comparison for Median Water Use with District-Specific Tier Breakpoints.

Table 5-4. Bill Comparison of Stand-Alone vs. Consolidated

	San Marino	Baldwin Hills	Duarte	San Diego	Ventura
Median Water Use (CGLs)	104.7	82.3	82.3	52.4	97.2
Existing Rates	$49.68	$51.66	$47.09	$37.35	$76.65
Cal Am Proposed Consolidated Rates	$62.11	$59.05	$52.97	$54.37	$68.88
Cal PA Recommended Stand-Alone Rates	$57.85	$51.87	$53.36	$49.56	$68.81
Cal PA Scenario 1: Consolidated Rates	$60.03	$60.54	$53.17	$54.26	$68.28

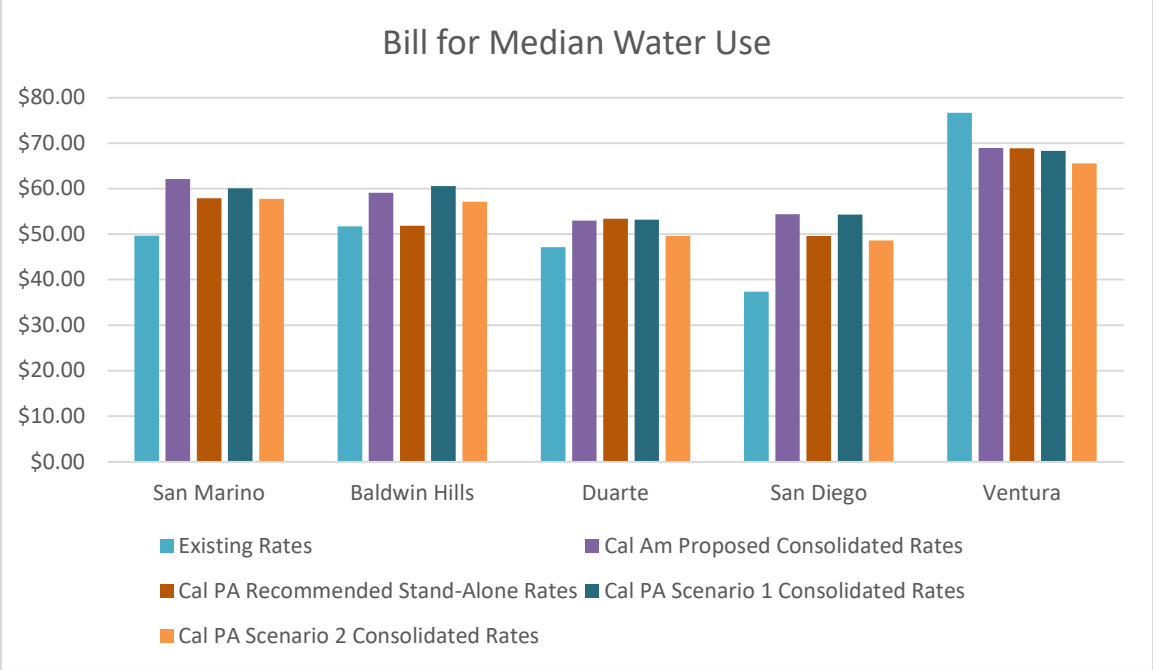
As discussed above, while this scenario generally does not result in higher bills for median water use than Cal Am's proposal, it does result in higher bills for median users in Baldwin Hills and San Diego when compared to a similar stand-alone scenario. This result can be mitigated in a number of ways, including:

- By collecting 20% of the total revenue requirement in meter charges, instead of 30% as proposed by Cal Am for consolidation.
    - Cal Am's proposal for San Diego and Ventura collect 20% of the total revenue requirement in meter charges, as discussed in Chapter 4. However, in Cal Am's consolidated scenario (and the scenario examined above), 30% of the total revenue requirement is collected in meter charges.
    - Under this scenario, the bill for median water use would be lower in the stand-alone scenario than the consolidated scenario for all districts except Baldwin Hills. For Baldwin Hills, the bill for median water use in the consolidated scenario would be 10% higher than stand-alone, as opposed to 14% in the scenario with 30% of revenue requirement collected in meter charges.
    - For a customer with median water use, in conjunction with the Public Advocates Office recommended changes to tier breakpoints and commodity charge step-ups, lowering the percentage of the revenue requirement collected in meter charges also: 1) lowers bills in all districts compared to the 30% scenario, and 2) provides a lower bill for median water use than Cal Am's proposed consolidation scenario in all districts.
    - Table 5-5 provides a summary of the results for this scenario (Cal PA Scenario 2) added to the same table as above. Figure 5-1 provides a visual comparison.

Table 5-5. Bill Comparison for Median Water Use with Cal PA Scenario 2

	San Marino	Baldwin Hills	Duarte	San Diego	Ventura
Median Water Use (CGLs)	104.7	82.3	82.3	52.4	97.2
Existing Rates	$49.68	$51.66	$47.09	$37.35	$76.65
Cal Am Proposed Consolidated Rates	$62.11	$59.05	$52.97	$54.37	$68.88
Cal PA Recommended Stand-Alone Rates	$57.85	$51.87	$53.36	$49.56	$68.81
Cal PA Scenario 1: Consolidated Rates	$60.03	$60.54	$53.17	$54.26	$68.28
Cal PA Scenario 2: Consolidated Rates	$57.75	$57.12	$49.62	$48.59	$65.57

Figure 5-1. Bill Comparison for Median Water Use



- By consolidating more than 50% of purchased water into the Southern Division revenue requirement for Baldwin Hills and/or San Diego.

If Commission authorizes consolidation of the Southern Division, it should authorize a rate design that does not significantly increase bills for median water

use for any district, when comparing "apples to apples" (that is, keeping tier breakpoints and commodity charge step-ups constant between the stand-alone and consolidated scenarios). There are many options for rate design in a consolidated Southern Division. If the Commission authorizes consolidation, it should not authorize a rate design that mutes conservation signals, as does Cal Am's rate design proposal for Southern Division consolidation. The above scenarios provide two examples of rate designs that: 1) maintain strong conservation signals, and 2) provide similar or lower bills than Cal Am's proposal. It is also critical to examine an "apples to apples" comparison between stand-alone and consolidated scenarios when assessing the effects of consolidation.

Data Errors

It is important to note some errors in Cal Am's tables comparing the stand-alone proposal to the consolidated proposal. The original direct testimony of Bahman Pourtaherian, Attachment 5, Table 3 contained errors in the consumption data.[177] The Public Advocates Office inquired about these errors,[178] and Cal Am issued an errata version, which still contains errors, as follows:

1) In Table 3, the Tier 1 breakpoint is *higher* for the consolidated scenario than the stand-alone scenario for San Diego and Baldwin Hills. Yet for each of these districts, the consumption in Tier 1 is *lower* for the consolidated scenario than the stand-alone scenario. For the other districts in the Southern Division, the Tier 1 breakpoint is *lower* for the consolidated scenario, yet the consumption in Tier 1 is *higher*.[179]

[177] Direct testimony of Bahman Pourtaherian, Attachment 5 errata, Table 3.

[178] Attachment 2: Cal Am response the Public Advocates Office's Data Request SR-01, Q003.

[179] Direct testimony of Bahman Pourtaherian, Attachment 5 errata, Table 3.

2) For many of the districts, the "current % usage" across all four tiers does not add up to 100%.[180]

Additionally, Cal Am's data response to the City of Thousand Oaks lists the total revenue collected for its stand-alone and consolidated scenarios. These two amounts are not equal.[181]

The Commission should require Cal Am to correct the errors causing these inaccuracies, and to present updated and accurate versions of these tables.

Savings Associated with Consolidation

Cal Am justifies its request for Southern Division consolidation by stating that consolidation "can eventually decrease regulatory costs"[182] and that "it will streamline regulation"[183] However, Cal-Am has not quantified any cost savings as a result of the proposed consolidation.

Cal Am also states "consolidation provides valuable incentives spurring larger utilities to acquire smaller ones,"[184] noting that some of these smaller utilities "will require upgrades to comply with more stringent regulations or aging infrastructure."[185] Cal Am gives several examples of recent acquisitions that were integrated into the Company's existing customer base, allowing the cost of replacing infrastructure or meeting new regulatory standards to be spread over a larger customer base.[186] Specifically, Cal Am states: "rate consolidation can

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[180] Direct testimony of Bahman Pourtaherian, Attachment 5 errata, Table 3.
[181] Attachment 6: Cal Am response to the City of Thousand Oaks' Data Request 01, Q001, p. 4.
[182] Direct testimony of Jeffrey T. Linam, p. 19.
[183] Direct testimony of Jeffrey T. Linam, p. 32
[184] Direct testimony of Jeffrey T. Linam, p. 25
[185] Direct testimony of Jeffrey T. Linam, p. 23.
[186] Direct testimony of Jeffrey T. Linam, pp. 21-25.

provide the economies of scale necessary to solve critical water quality issues, particularly where there is a small customer base in need of significant infrastructure improvements."[187]

While this is indeed a benefit of consolidation to the utility acquired, Cal Am neglects to mention that it is also a significant benefit to Cal Am itself. When Cal Am acquires another water utility, the purchase price is considered a capital expenditure, and Cal Am's rate of return on that capital expenditure is added to the revenue requirement of the new system. If the system needs capital improvements, Cal Am earns its rate of return on investments made towards those capital improvements. When acquired systems are consolidated with Cal Am's existing systems, the effect of these costs are spread out among a larger customer base, enabling Cal Am to increase capital expenditures without causing rate shock[188] and earn additional money for shareholders in the process. Thus, consolidation affords additional earnings to Cal Am's shareholders, at the expense of Cal Am's existing customers.

As clearly detailed in Cal Am's testimony,[189] if the Commission approves Cal Am's proposed Southern Division consolidation, it will pave the way for further acquisitions and provide additional profit for Cal Am's shareholders. Additionally, it will decrease Cal Am's regulatory cost, and will likely afford additional efficiencies. Therefore, if the Commission approves Cal Am's proposed Southern Division consolidation, existing customers in those districts should share in the financial benefits of the consolidation.

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[187] Direct testimony of Jeffrey T. Linam, p. 21.

[188] Direct testimony of Jeffrey T. Linam, p. 22.

[189] Direct testimony of Jeffrey T. Linam, pp. 19-25.

Cal Am's current rate of return is 7.61%.[190] It is reasonable to assume that Southern Division consolidation will pave the way for capital improvements for newly acquired utilities of approximately 10% of existing revenue requirement. Therefore, the Commission should impute a savings of 0.761% of the authorized combined revenue requirement for the Southern Division. This is a conservative estimate, as it does not account for any savings resulting for more efficient operations, nor does it account for the rate of return that Cal Am would earn on the purchase price of any new acquisitions. That purchase price, plus Cal Am's rate of return, would also be added to the existing revenue requirement of the consolidated districts. As Cal Am states: "consolidation provides valuable incentives spurring larger utilities to acquire smaller ones." Cal Am should be required to share some of those "valuable incentives" with its existing customers.[191]

2) Special Request #4 – Leak Adjustment Policy

In Special Request #4, Cal Am requests to move recovery of leak adjustments from Balancing and Memorandum Accounts into the WRAM. Currently, requests are reviewed through the GRC process to determine the reasonableness of recovery. If leak adjustments are moved into the WRAM, Cal Am would submit an advice letter for recovery. The Commission should deny this request.

Leak adjustments are issued by Cal Am to individual customers, at the discretion of Cal Am staff. Any amounts authorized for recovery are currently recovered via the Consolidated Expense Balancing Account ("CEBA") surcharge paid for by all customers in each respective division. When the Commission authorized a memorandum account for leak adjustments in Resolution W-4951, it

[190] A.19-07-004, pp. 8-10.

[191] Direct testimony of Jeffrey T. Linam, p. 25.

specified that to recover the costs of leak adjustments in rates, Cal-Am would have to demonstrate that:

(1) It acted prudently when it incurred these revenue shortfalls;

(2) The level of booked revenue shortfalls is reasonable;

(3) The revenue shortfalls incurred are not covered by other authorized rates; and

(4) It is appropriate for ratepayers, as a matter of policy, to pay for these categories of revenue shortfalls in addition to otherwise authorized rates.[192]

The Commission also required Cal Am to support leak adjustment expenses with adequate documentation to enable the Commission to review the expenses for reasonableness.[193] Further, in regards to leak adjustments in the Monterey District, the Commission stated that due to "Cal-Am's failure to adequately justify previous expenditures, we find that additional scrutiny of these expenses via a balancing account is appropriate."[194]

If the Commission were to approve Cal Am's request to move leak adjustment recovery into the WRAM, the requirements previously set forth by the Commission as safeguards to customers would no longer apply to Cal Am's recovery of leak adjustments. The advice letter process generally offers less time and less oversight for reasonableness review than the GRC process. Reasonableness reviews that occur as a part of a formal Commission proceeding provide additional layers of oversight that are not experienced in the advice letter review process.

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[192] Resolution W-4951, p. 10 (Ordering Paragraph 3).

[193] *Re Cal Am General Rate Case for years 2018, 2019, 2020,* D.18-12-021, p. 56.

[194] D.18-12-021, p. 57.

Recovery of leak adjustments require additional scrutiny for the following reasons:

1) Unlike WRAM balances, leak adjustments are provided to customers at the discretion of Cal Am staff.

2) In the past, Cal-Am has failed to justify leak adjustment expenditures adequately.[195]

3) Cal Am implemented a new policy for leak adjustments on January 1, 2018.[196] The Commission has had limited opportunity to observe and review Cal Am's adherence to its new policy.

4) Although Cal Am claims in testimony that its new leak adjustment policy "limits a water loss adjustment to once every 24 months,"[197] its own review of 664 leak adjustments issued after this policy was implemented reveal that 45 adjustments (7%) were issued to customers who had already received adjustments in the past 24 months.[198] It appears that Cal Am's leak adjustment policy allows for exceptions to the 24-month limitation,[199] but the policy does not specify what conditions warrant an exception. Given Cal Am's prior failure to justify leak expenditures adequately, this portion of Cal Am's policy warrants additional scrutiny.

The Commission should maintain the existing level of oversight over Cal Am's recovery of its leak adjustments expenses. Customers should not be

[195] D.18-12-021, p. 56.
[196] Direct testimony of Jeffrey T. Linam, p. 53.
[197] Direct testimony of Jeffrey T. Linam, p. 53.
[198] Direct testimony of Stephen (Wes) Owens, Attachment 10.
[199] Direct testimony of Jeffrey T. Linam, Attachment 4, wkpr 2-3.

required to pay for any unreasonable or unjustified adjustments. The appropriate way to ensure that customers are not paying for unreasonable or unjustified adjustments is for the Commission to review these expenditures in the GRC process, not via the advice letter process, in conjunction with the WRAM. The testimony of the Public Advocates Office's witness Anusha Nagesh provides an analysis of Cal Am's leak adjustment forecast, as well as the Public Advocates Office's recommended forecast for leak adjustments.

3) Special Request #5 – Modification of Existing 15% Cap on WRAM Amortization

In Special Request #5, Cal Am proposes to increase the existing 15% cap on the annual amortization of the WRAM/Water Revenue Adjustment Mechanism ("MCBA"), authorized by D.18-12-021, to 25%. Cal Am does not propose any changes to the current amortization periods for recovery of uncollected balances. The Commission should deny this request.

Cal Am argues that:

- The 10% original cap is arbitrary;[200]
- The current 15% could inhibit Cal Am's effectiveness in pursuing aggressive conservation in times of drought or during periods of limited supply for a district; and[201]
- Delayed recovery causes inter-generational equity.[202]

Cal Am's arguments misrepresent the facts.

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[200] Direct testimony of Jeffrey T. Linam, p. 65.

[201] Direct testimony of Jeffrey T. Linam, p. 60.

[202] Direct testimony of Jeffrey T. Linam, p. 60.

The original 10% cap is not arbitrary

Cal Am's claim that the original 10% cap is arbitrary and without basis is incorrect.[203] The Commission considered the issue when Cal Am and four other Class A water utilities with full decoupling mechanisms requested modification to the amortization schedule to allow for faster recovery of WRAM/MCBA balances.[204] The scope of that proceeding included an "examination of whether the high volatility experiences in some districts comports with the Commission's expectations in adopting the [WRAM/MCBA] mechanisms."[205]

The resulting decision modified the existing amortization schedule in the Water Division's Standard Practices.[206] The Commission also limited the annual cumulative WRAM/MCBA surcharge increases to 10% of the utilities' authorized revenue requirement.[207] The Commission stated:

> Applicants' proposals to shorten the amortization period for net WRAM/MCBA under-collections could expose customers to substantial rate increases without any notice or opportunity to be heard. For example, under these proposals, the WRAM/MCBA amortization period could in some circumstances double the associated surcharge on a customer's bill.[208]

The Commission concluded, "[i]t is unreasonable to accelerate amortization of 2010 WRAM/MCBA balances. Such amortization would result in excessive

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[203] Direct testimony of Jeffrey T. Linam, p. 65.

[204] See generally *Re Amortization of WRAM-Related Accounts* (Sept. 20, 2010) Application ("A.") 10-09-017 (considering the issue of WRAM/MCBA balances).

[205] *Re Amortization of WRAM-Related Accounts* (June 8, 2011) Ruling and Scoping Memo, p. 13.

[206] *Re Amortization of WRAM* Accounts, D.12-04-048, pp. 17, 41 (modifying SP U-27-W).

[207] D.12-04-048, p. 40.

[208] D.12-04-048, p. 36.

impacts in many districts in 2012."[209] The Commission further found that it was reasonable to limit the level of WRAM/MCBA surcharges passed through on customers' bills by Tier 1 advice letters to 10% of the last authorized revenue requirement.[210]

In Cal Am's last GRC proceeding, the Commission similarly found: "[t]he 10% cap was adopted as a ratepayer protection measure against rate shock and unreasonably high rates."[211] The Commission adopted the 10% cap as a safeguard to ensure that ratepayers would not experience excessive surcharges, and found that the cap still provided important protections. The Commission should not abandon that safeguard.

The existing cap does not inhibit conservation

Cal Am does not provide any evidence or justification for its claim that the cap on WRAM/MCBA recovery could inhibit its effectiveness in pursuing aggressive conservation in times of drought or during periods of limited supply for a district. To the contrary, despite the caps that were in place during the 2014 – 2016 drought, consumption per service connection dropped significantly during that time.[212] Additionally, in the event of drought or during periods of limited supply, Cal Am has the ability to request to add a Rule 14.1 and/or Schedule 14.1 to its tariffs via Tier 2 advice letter to address the effects of the drought.[213]

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[209] D.12-04-048, p. 41.

[210] D.12-04-048, p. 38.

[211] D.18-12-021, p. 236

[212] Direct testimony of David Mitchell, Attachment 2, p. 12. ("During the state conservation mandate, Cal Am's residential customers saved, on average, 22 percent relative to pre-drought water use. For the commercial and public authority classes, customers saved, on average, 16 and 20 percent, respectively, during the state mandate.")

[213] Cal. P.U.C. Standard Practice U-40-W.

Inter-generational inequity

Cal Am argues there may be intergenerational inequity issues if the WRAM/MCBA cap is not lifted.[214]

The issue here is not that intergenerational issues are caused by the recovery cap because this can occur with any regulatory balancing or memorandum account. Intergenerational equity issues could occur because of the relatively large accumulated balances in Cal Am's WRAM/MCBA accounts.

The 10% recovery cap would not delay recovery of under-collected balances if the under-collected balances were a smaller amount. While the 10% recovery cap may temporarily alleviate issues associated with large under-collected balances in the short-term, it will not address the reasons large balances accumulated in the first place. Rather than eliminating a ratepayer protection, the underlying issues which cause large balances should be addressed. These issues include Cal Am's inaccurate forecasting methodologies that continue to result in under-collections in revenue, including the over-forecasts of customer demand addressed in Chapter 2 of this testimony.

The WRAM/MCBA recovery cap was established to protect ratepayers against excessive surcharges and unreasonably high rates. The rationale for establishing the caps still exists today. Rather than eliminating this important ratepayer protection, the Commission must address the underlying issues that have caused large WRAM/MCBA balances in the past and correct course in this GRC. The Commission should deny this special request.

[214] Direct testimony of Jeffrey T. Linam, p. 65.

4) Special Request #7 – Alignment and Simplification of District Specific Tariffs

In Special Request #7, Cal Am seeks to establish a single WRAM/MCBA, a single WRAM/MCBA surcharge, a single CEBA, and a single CEBA surcharge for its Southern Division. Cal Am also seeks to establish a single WRAM/MCBA, a single WRAM/MCBA surcharge, a single CEBA, and a single CEBA surcharge for its Northern Division. For its Central Satellite District, Cal Am seeks to fold Toro and Ambler pre-2018 WRAM/MCBA balances into the existing Central Satellite WRAM/MCBA.

For the Northern Division and Central Satellite District, the Public Advocates Office does not oppose Cal Am's requests. Cal Am's requests for consolidations of WRAM/MCBA and CEBA accounts and surcharges follow Commission approved consolidations of revenue requirements. It is reasonable to also consolidate WRAM/MCBA and CEBA accounts and surcharges.

For the Southern Division, the Commission should only authorize Cal Am's request if the Commission authorizes the consolidation of revenue requirements for the Southern Division. See the discussion in this chapter for Special Request #1 for more details on recommendations regarding Cal Am's consolidation request for the Southern Division.

5) Special Request #8 – Meadowbrook Rate Design Consolidation Deferral

In Special Request #8, Cal Am requests to delay certain elements of the approved consolidation of Meadowbrook customers onto the Northern Division tariff and rates. The Public Advocates Office does not oppose this request, provided that the Commission adopts the rate design recommendations for Meadowbrook presented in Chapter 4.

Cal Am seeks a separate stand-alone rate design for its Meadowbrook customers that mirrors its proposed three-tier rate design for its Sacramento

District customers, but that is set based on the specific consumption profile of its Meadowbrook District. Cal Am requests this delay in order to mitigate the rate impact to its Meadowbrook customers. For Cal Am's proposed rates and rate structure, a customer with the average Meadowbrook residential usage of 129.4 CGL would experience a 68% bill increase if Meadowbrook transitioned to Sacramento District's rates in this GRC cycle.[215]

The Commission should ensure that the rate structure in Meadowbrook prioritizes conservation, as:

- The Meadowbrook service area is part of a critically over-drafted basin as defined by the State Water Resources Control Board and must bring consumption down to meet State requirements.[216]
- The Commission approved consolidation of the Meadowbrook service area into Cal Am's Sacramento District for ratemaking purposes in 2016. However, the average consumption of Meadowbrook customers is significantly higher than that of Sacramento customers. To consolidate the tariffs of these two districts, Meadowbrook customers must either reduce consumption or face large bill increases.[217]

To encourage conservation in the Meadowbrook service area, the Commission should adopt a four-tiered rate structure with the recommended tier breakpoints and step-ups in commodity rates presented in Chapter 4. Provided the Commission adopts these initiatives that encourage conservation in Meadowbrook, the Public Advocates Office does not oppose this special request.

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[215] Direct testimony of Jeffrey T. Linam, p. 77.

[216] Direct testimony of Jeffrey T. Linam, p. 77.

[217] Direct testimony of Jeffrey T. Linam, p. 76.

6) Special Request #12 – Annual Consumption Adjustment Mechanism

In Special Request #12, Cal Am requests that the Commission: 1) make permanent the pilot Annual Consumption Adjustment Mechanism ("ACAM") in the Monterey County District, and 2) Establish a similar ACAM pilot program for the Northern Division. The Commission should deny this request and should instead eliminate the existing pilot ACAM in Monterey.

ACAM General Issues for All Water IOUs

The Commission is currently addressing the concept of Consumption Adjustment Mechanisms ("CAMs"), also known as Sales Reconciliation Mechanisms ("SRMs"), in a water-industry-wide rulemaking proceeding, R.17-06-024. The Commission should not entertain the idea of adopting a new pilot ACAM or making an existing pilot ACAM permanent in the instant proceeding when it is also examining the merits and drawbacks of CAMs in an open rulemaking. The record of R.17-06-024 (and before it, R.11-11-008) provide a plethora of additional resources related to CAMs, including extensive discussions of CAMs shortcomings, which include, but are not limited to, the following:

1. CAMs result in more frequent rate changes for customers. More frequent rate changes should be avoided whenever possible because: a) frequent rate changes (increases) make it more difficult for customers (especially lower-income customers) to budget for their water bills, which may result in disconnections; and b) rate changes occurring outside of GRCs make it harder for the Commission to see full impact of cumulative rate changes on customers' bills.

2. CAMs rely on single-issue ratemaking. CAM adjustments *only* assess water consumption and do not examine other sources of revenue, investor-owned utility ("IOU") expenditures, and many other factors that are important inputs to the ratemaking process. Capital projects can fall behind

schedule resulting in expenditures not occurring at the anticipated times, thereby changing an IOUs need for revenue (as determined when calculating rates in GRCs). The Water IOUs' need for revenue is not assessed in CAMs and not considered when rates are changed outside of GRCs.

3. CAMs rely on a limited timeframe for demand forecast adjustments. This decreases transparency, requires adjustments to be based on limited analysis, and can place too much significance on demand in past year without taking other appropriate factors into consideration.

4. CAMs decrease the incentive to provide accurate sales forecasting in GRCs. IOUs can provide a high demand forecast in GRCs when there is a higher level of public participation and transparency regarding rates, but adjust those forecasts downward (and rates upward) by a CAM when there is less public attention and scrutiny.

5. CAMs can result in frequent rate adjustments via the Advice Letter ("AL") process. This is problematic because:

    a. ALs are designed for ministerial, non-controversial requests.

    b. ALs provide significantly less transparency for utility customers and the Commission than GRCs, because ALs:

        i. Provide limited opportunity for public participation;

        ii. Do not have public participation hearings;

        iii. Are not subject to ex parte rules; and

        iv. Do not provide for evidentiary hearings on dispute facts.

    c. ALs are generally processed in a much shorter timeframe that GRCs, with a reduced time for review. This limited timeframe is only

appropriate for straightforward rate adjustments with less complexity than those associated with CAMs.

6. CAMs can send unintended price signals during drought periods. If consumption increases during a drought period, a CAM will provide a corresponding *decrease* in rates, sending a price signal that does not encourage necessary conservation.

ACAM Issues Specific to Cal Am's Request

The above details general concerns with CAMs. The Commission should approach Cal Am's request in the instant proceeding with additional caution, given the difficulty the Commission has encountered in past proceedings with Cal Am's reporting of consumption data, and the difficulties the Public Advocates Office has experienced in the instant proceeding with the same.

In the instant proceeding, Cal Am has provided the Public Advocates Office with contradictory data on numerous occasions.[218] Both times that the Public Advocates Office requested Cal Am to resolve discrepancies in recorded data, Cal Am asked for extensions of time, and took two weeks to provide the requested recorded data.[219] On both of these occasions, the recorded data provided contained additional discrepancies.[220] In past proceedings, this has also

[218] Cal Am's response to the Public Advocates Office's Data Request SR-4 03 Q002 provides varying reports of meter numbers in Attachment 1. In the tab "Detail_by_Meter_Sizes" the total meter count on 12/31/2018 175,862, while in tab "All_District_by_Cust_Group" the total meter count on 12/31/2018 is 177,900. Additionally, as described earlier in this testimony, Cal Am provides three different versions of the years utilized to determine usage percentages per tier, and in some of these accounts the total usage percentages across the tiers does not adding to 100%. For example, in the direct testimony of Bahman Pourtaherian, Attachment 5 errata, Table 3, the sum of the usage percentages in all four tiers for San Marino District yields a total of 98%.

[219] Cal Am took 14 days to respond to requests for recorded data for the Public Advocates Office's Data Request SR-4 01 Q002 and Q003, and 13 days to respond to requests for recorded data in Data Request SR-4 03 Q002 and Q003.

[220] The Public Advocates Office's Data Request SR-4 03 Q003 and the Public Advocates

(continued on next page)

been an issue. In its decision denying Cal Am's initial request for an ACAM in Monterey, the Commission stated that Cal Am "provided a range of different responses for actual 2014 consumption data."[221] The Commission goes on to expresses concern with three examples of Cal Am providing insufficient explanation for differences in recorded consumption data. The Commission concludes "[t]hese examples point to the importance…[of] a sufficient amount of time for staff and others to verify the data."[222]

Cal Am's proposed ACAM would change rates through an advice letter process, using consumption data provided by Cal Am as a part of the process. The advice letter process generally provides less time for the Commission to verify the data provided than is afforded in GRCs, as well as less oversight than a GRC process (as detailed above).

In addition, Cal Am's attempts to justify the ACAM in the instant proceeding are misleading. For example:

1. Cal Am references a white paper from the Commission's Policy and Planning Division ("PPD") that assessed the impacts of a mechanism similar to the ACAM.[223] It is important to highlight that the analysis and conclusion in the white paper were entirely hypothetical, rely on a theoretical IOU scenario, and not thoroughly vetted with real data. The hypothetical scenario assumed that consumption was lower than the

Office's Data Request SR-4 01 Q003 sought to resolve discrepancies in Cal Am's data. In Cal Am's responses to each of these data requests, Cal Am provided new data differing from its original data, each with new discrepancies (as detailed in the footnote above).

[221] *Re Cal Am Application to Modify Conservation and Rationing Rules, Rate Design, and Other Related Issues for the Monterey District*, D.16-12-003, p. 70.

[222] D.16-12-003, p. 70.

[223] Direct testimony of Jeffrey T. Linam, p. 88 (referencing *Evaluating Forecast Models, the Water Revenue Adjustment Mechanism*, *available at*: https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/About_Us/Organization/Divisions/Policy_and_Planning/PPD_Work/PPDtheWRAM.pdf).

authorized amount in the test year, and then stayed at that same level for the following two years. In reality, if demand is reduced in the test year, it could increase in the following years. If, for example, consumption was lower than authorized in the test year, and then increased the following year (as consumption generally did for Cal Am in 2018[224]), an ACAM would raise rates, causing Cal Am to over-collect revenues. The Commission should not utilize hypothetical scenarios from a theoretical water utility to make important decisions that impact ratepayers.

2. Cal Am further attempts to justify the ACAM by stating that "frequent rate changes confuse customers."[225] This is true and is one of the reasons that the Commission should reject the ACAM. As discussed above, the ACAM can cause more frequent rate changes.

Cal Am claims that having an ACAM in place for 2014 and 2015 would have reduced the net under-collection for the Monterey Main System. However, the table on which Cal Am bases its claim is taken directly from its testimony in A.15-07-019.[226] In that proceeding, the Commission expressed concern with data inconsistencies in recorded consumption data, as discussed above. The table provided in the instant proceeding utilizes that same recorded consumption data that was the subject of the Commission's concern. The Commission should remain concerned with Cal Am's insufficient explanation for differences in recorded consumption data, and disregard Cal Am's claims in this proceeding.

Ultimately, the proposed ACAM would provide yet another mechanism for Cal Am to disguise the effects of its proposals on the rates set in this proceeding.

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[224] Attachment 1: Cal Am response to the Public Advocates Office's Data Request SR-03, Q001.

[225] Direct testimony of Jeffrey T. Linam, p. 86.

[226] Direct testimony of Jeffrey T. Linam, Attachment 7, provides the relevant excerpt from Linam Rebuttal Testimony A.15-07-019, pp. 18-19.

As discussed in Chapters 2 and 3 herein, Cal Am appears to over-forecast demand, artificially keeping rates low in this proceeding. Then it proposes an ACAM, that would adjust rates through an advice letter process which provides less transparency and less oversight than the instant proceeding.

Instead of allowing Cal Am to disguise the effects of its proposals on rates set in its GRC, the Commission should adopt more realistic demand forecasts, as discussed herein. Additionally, in complying with D.16-12-021, Cal Am improves its forecasting techniques in this GRC by assessing factors outside of the New Committee Method.[227] M.Cubed's analysis provides a more extensive analysis of demand forecasts than Cal Am previously provided, including developing a sales model and applying the model to past consumption data.[228] The Commission should first assess the effects of these improved forecasting methods before approving additional ACAMs or making a pilot ACAM permanent.

Additional Problems with Cal Am's Requested ACAMs

In addition to concerns about Cal Am's general justification for ACAMs, Cal Am's specific requests are also problematic.

For the Monterey pilot ACAM, the Commission authorized the pilot program stating that "[i]t will be evaluated in a subsequent general rate case, and Cal-Am will provide actual consumption data for the first full year following its implementation for that evaluation."[229] Cal Am filed an advice letter to implement the pilot program on March 27, 2019.[230] The required consumption data for first full year following implementation will not be available until March

[227] Direct testimony of Bahman Pourtaherian, p. 12.
[228] Direct testimony of David Mitchell, Attachment 2.
[229] *Re Cal Am Phase 3A Settlement Agreement*, D.18-05-027, p. 7.
[230] Direct testimony of Jeffrey T. Linam, p. 89.

2020. Therefore, it is not yet possible to meet the requirements of the authorizing decision to evaluate the pilot in this GRC.

In the absence of a full year's data following implementation of the pilot, the Commission should not make the pilot permanent, as Cal Am requests. Instead, due to the shortcomings of ACAMs, the fact that Cal Am does not expect large variations in demand in Monterey in the upcoming years,[231] the Commission should eliminate the existing pilot program in Monterey.

For the requested Northern Division ACAM, it is important to note that the Monterey pilot ACAM was adopted as part of settlement agreement. The Commission should not view it as precedential for ACAMs. Additionally, the Monterey pilot ACAM was adopted due to specific circumstances in Monterey that do not exist in the Northern Division today, including supply limitations and a five-tier rate structure with extremely steep step-ups in commodity charges. The Commission authorized the pilot ACAM in Monterey "because of the strict use restrictions and the amended [Cease and Desist Order ("CDO")] deadline, which will continue to place downward pressure on, and require strict demand limits in the future."[232] Those specific circumstances do not exist in Northern Division today, nor do any circumstances that outweigh the shortcomings of ACAMs described above.

The Commission should deny Cal Am's request to make the Monterey pilot ACAM permanent and deny Cal Am's request to establish a pilot ACAM in the Northern Division. Additionally, the Commission should eliminate the existing pilot ACAM in Monterey.

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[231] Direct testimony of Jeffrey T. Linam, p. 90.

[232] D.18-05-027, Attachment 1, Section 4.2.4.

7) Special Request #15 – Proposed Operational Tariff Modifications

In Special Request #15, Cal Am requests a number of tariff modifications. The tariff modifications requested are:

1) AMR/AMI Opt-Out Program Tariffs[233]
    a. Initial fee of $70 (only applicable if automated metering equipment is required to be removed from the customer premises);
    b. Monthly charge of $13/month; and
    c. Both fees applied on a per-location, not per-meter basis.
2) RFPS Customer Discount[234]
    a. Eliminate the separate RFPS meter charges; and
    b. Add a meter-based sur-credit that will produce the same effect as charging multi-use customers a rate between meter sizes.
3) Rule 10 (Disputed Bills) Tariff
    a. Add a billing error tariff; and
    b. Limit refunds to a three-year period for overcharges and three months for undercharges.
4) Rule 18 (Meter Errors) Modifications
    a. Limit refunds for meter errors with a known start date to a three-year period for overcharges and three months for undercharges.
5) Schedule CA-4 and CA-4H – Private Fire Services Modifications

[233] Direct testimony of Garry Hofer, pp. 116-118.

[234] Direct testimony of Garry Hofer, pp. 118-120.

a. Add language regarding liability limitations for private fire service.

6) Changes to CA-FEES – Elimination of Connection Fee

a. Eliminate the Connection Fee for each service connection to existing distribution systems.

b. Charge the actual construction cost of connecting to existing distribution systems for all new service connections (this will be a pass-through fee);

c. Assess costs through a competitive bidding process.

7) Statewide Metered Construction Service Meter Tariff

a. Create statewide tariff for construction meters;

b. Require a deposit for construction meters;

c. Require customers to self-report water use; and

d. Require customers to pay any outstanding balance in full before deposit is returned. Balance cannot be deducted from deposit.

Most of the requested tariff additions and modifications are reasonable, similar to tariffs of other Class A utilities of similar size, and provide simplified tariffs for Cal Am customers. The Public Advocates Office does not oppose the majority of the requested modifications. The exceptions are detailed below.

Tariff Revenue

For any authorized tariff modifications that result in collection of revenues, the Commission should require Cal Am to report the revenues in recorded data in step filings, in GRCs, and any other reports of recorded revenue. This includes, but is not limited to, the following:

- Revenue from AMI/AMR opt out tariffs;[235]
- Revenue from new service connection fees; and[236]
- Revenue from any forfeitures of construction meter deposits due to abandonment.[237]

Rule 10 and Rule 18 Modifications

Cal Am requests establishing Rule 10 and modifying Rule 18 on its tariff sheets such that adjustments to bills for billing errors and meter errors would have time limits. Cal Am's proposed time limit for overcharges is three years, and for undercharges it is three months.[238] Cal Am frames this request as "similar to those already included in California American Water's Rule 18,"[239] claiming that it clarifies and makes consistent "the refund limitations found in Rule 18 for meter errors."[240]

However, the proposed limitations are significantly different from those already included in Rule 18. The limitations that exist in Rule 18 are specific to situations in which a meter error is discovered "upon a test"[241] to be running fast or slow, but the start date of the meter error is not known. Rule 18 currently specifies: "[w]hen it is found that the error in the meter is due to some cause, **the**

[235] Direct testimony of Stephen (Wes) Owens, Attachment 5.
[236] Direct testimony of Stephen (Wes) Owens, Attachment 5.
[237] Direct testimony of Stephen (Wes) Owens, Attachment 5.
[238] Direct testimony of Stephen (Wes) Owens, Attachment 5.
[239] Direct testimony of Garry Hofer, p. 121.
[240] Direct testimony of Garry Hofer, p. 121.
[241] Direct testimony of Stephen (Wes) Owens, Attachment 5 (Rule 18B.1 and 18B.2).

date of which can be fixed, the overcharge or the undercharge will be computed back to but not beyond such a date."[242]

It is reasonable that, when the start date of a meter error is unknown, a time limit is imposed on the amount of refund a customer would receive from the meter error. However, if the date of the meter error is known, no such time limit currently exists, nor should it exist. The three other Class A water utilities closest in size to Cal Am all have identical language to Cal Am's existing Rule 18 — time limits are only imposed when the start-date of the meter error is unknown.[243]

The same is true for Cal Am's request for time limitations for Rule 10 related to billing errors. The three other Class A water utilities closest in size to Cal Am have identical language to that proposed by Cal Am for 10.D.1, which defines a billing error.[244] However, none of the three have the additional language proposed by Cal Am as 10.D.2 and 10.D.3, which provides a time limit on billing error recovery by customers.[245]

The Commission should deny the rule modifications requested by Cal Am for Rule 10 and Rule 18 that limit customers' ability to collect refunds for billing errors when the date of the billing error is known.

Construction Meters

The Commission should deny the portion of Cal Am's requested tariff modification to Construction Meters that requires customers to pay outstanding balances in full before the customer's deposit is returned. The Commission should

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[242] Attachment 7: Rule 18.B.4 (current tariff sheet). (emphasis added).

[243] Attachment 8: Rule 18 tariff sheets for other Class A Water IOUs.

[244] Attachment 9: Rule 10 tariff sheets for other Class A Water IOUs. *See* also: http://files.swwc.com/ca/tariff/tariff-rule10.pdf

[245] Direct testimony of Stephen (Wes) Owens, Attachment 5.

allow customers to deduct outstanding balances from the deposit that Cal Am collected from the customer.

8) Special Request #17 – Monterey Wastewater High Cost Fund

In Special Request #17, Cal Am requests the establishment of a high-cost fund for its active wastewater service in the Central Division. Cal Am proposes that all non-low-income Cal Am customers not in this service area pay a flat surcharge of $0.29/month to finance the High Cost Fund. This surcharge would apply to both water and wastewater customers. The Commission should deny this request.

Cal Am frames this special request as a request for consolidation. However, in reality, the request primarily represents a cross-subsidy from its water customers (who would receive no benefit from the establishment of this fund) to its active wastewater customers.[246]

When presented with an almost identical request,[247] the Commission determined that "there are unlikely to be benefits to Cal-Am's water customers and we find a lack of justification for requiring water customers to subsidize all active wastewater customers, especially considering that the subsidy would be given regardless of whether a specific wastewater customer may be experiencing affordability issues."[248] In that decision, the Commission rejected Cal Am's request for a High Cost Fund for its active wastewater customers.[249] It also allowed that an appropriate approach for addressing some of the affordability issues in the active wastewater system may be to explore revising the cost

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[246] The exception to the cross-subsidy is Monterey passive wastewater system customers, to whom the request would represent something more akin to consolidation.

[247] Direct testimony of Jeffrey T. Linam at p. 91.

[248] D.18-12-021, p. 243.

[249] D.18-12-021, pp. 243–244.

allocation factors between water and wastewater service and between active and passive wastewater customers in Monterey.[250] It concludes by suggesting that Cal-Am could put forth a proposal for revising the cost allocation factors in its next GRC, if it provides sufficient justification for the request.[251]

Instead, Cal Am chooses in the instant application to present essentially the same request as the Commission previously rejected. Cal Am attempts to justify the High Cost Fund by applying the Commission's High Cost and Affordability Screening Framework to its Monterey Wastewater District.[252] However, Cal Am itself admits that the framework is meant to apply to water utilities and not wastewater utilities.[253]

The Commission already determined that a High Cost Fund for active wastewater customers is unlikely to benefits Cal-Am's water customers. The special request, therefore, requires all of Cal Am's water customers to subsidize Cal Am's active wastewater customers. The Commission should deny this special request.

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[250] D.18-12-021, pp. 243–244.

[251] D.18-12-021, p. 244.

[252] Direct testimony of Jeffrey T. Linam at p. 93 (relying on high cost and affordability framework adopted by Commission in D.14-10-047).

[253] Direct testimony of Jeffrey T. Linam, p. 92.

Attachment 1: Cal Am Response to the Public Advocates Office's Data Request SR4 03

[Provided on CD]

Attachment 2: Cal Am Response to the Public Advocates Office's Data Request SR4 01

[Provided on CD]

Attachment 3: New Meter Distribution

[Provided on CD]

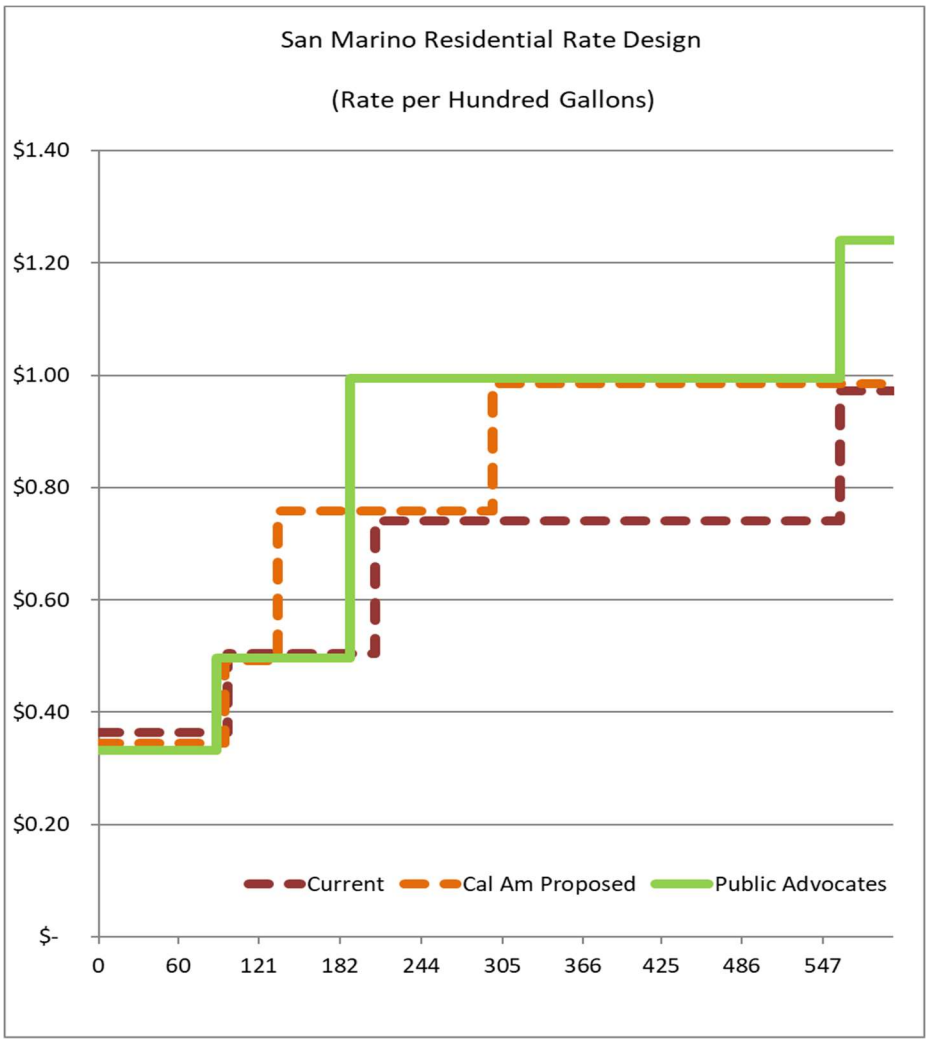
Attachment 4: Cal Am Response to the Public Advocates Office's Data Request SR4 04

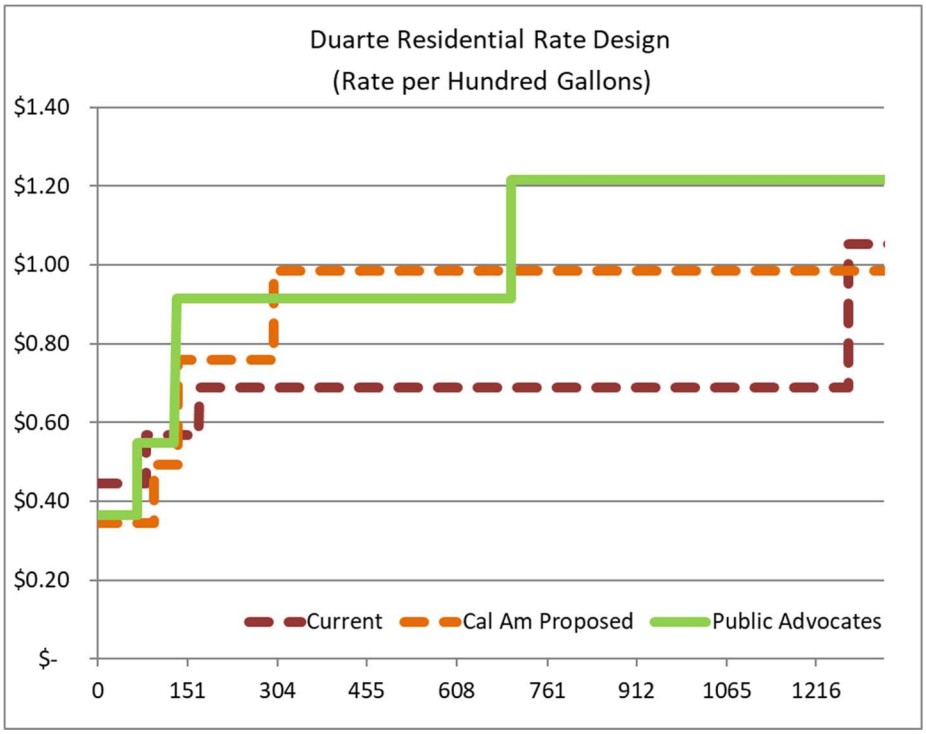
[Provided on CD]

Attachment 5: Tiered Rate Graphs

Tiered Rates

The below graphs depict existing tiered rates, Cal Am's proposed tiered rates, and Public Advocates Office recommended tiered rates. For the Southern Division, the graphs depict Cal Am's proposed consolidated rates, and the Public Advocates Office's recommended stand-alone rates. It was not possible to calculate the Tier 3 and Tier 4 rates for the Public Advocates Office's scenarios for consolidation because Cal Am's RO Model does not support individualized tier breakpoints with a consolidated revenue requirement for the Southern Division.




Duarte Residential Rate Design
(Rate per Hundred Gallons)
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$1.00
$0.80
$0.60
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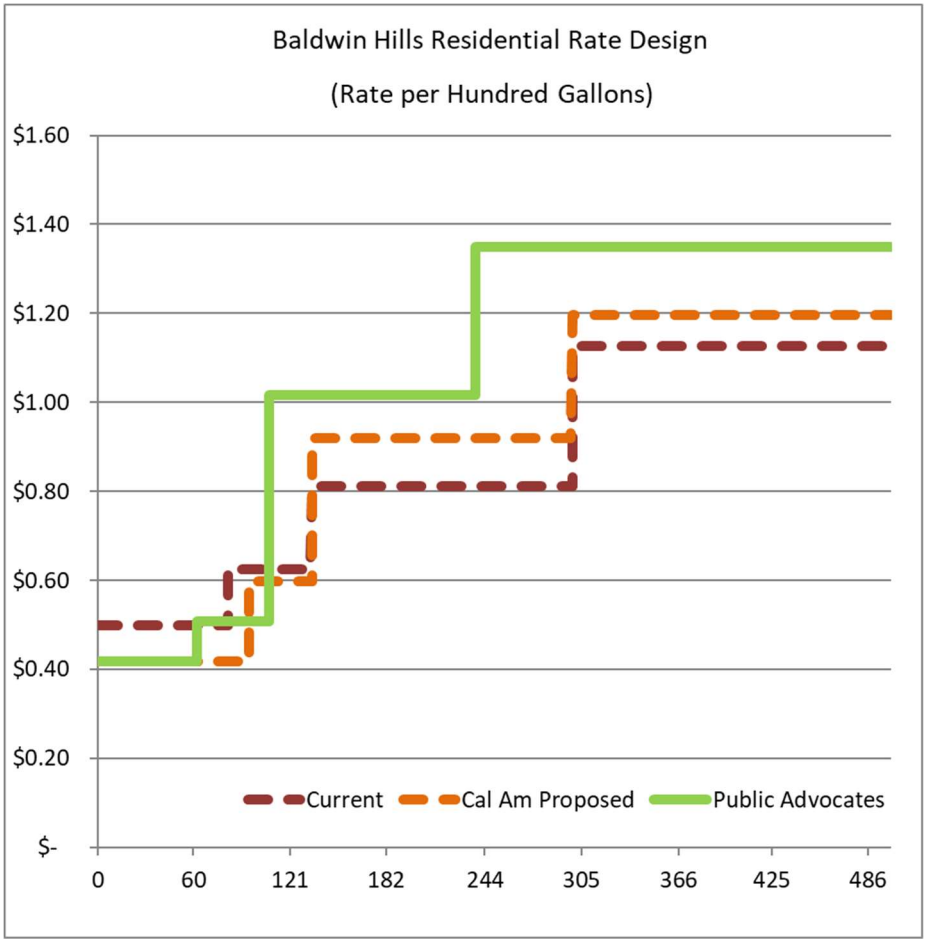
608
761
912
1065
1216
Current
Cal Am Proposed
Public Advocates


Baldwin Hills Residential Rate Design
(Rate per Hundred Gallons)
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$1.20
$1.00
$0.80
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$-
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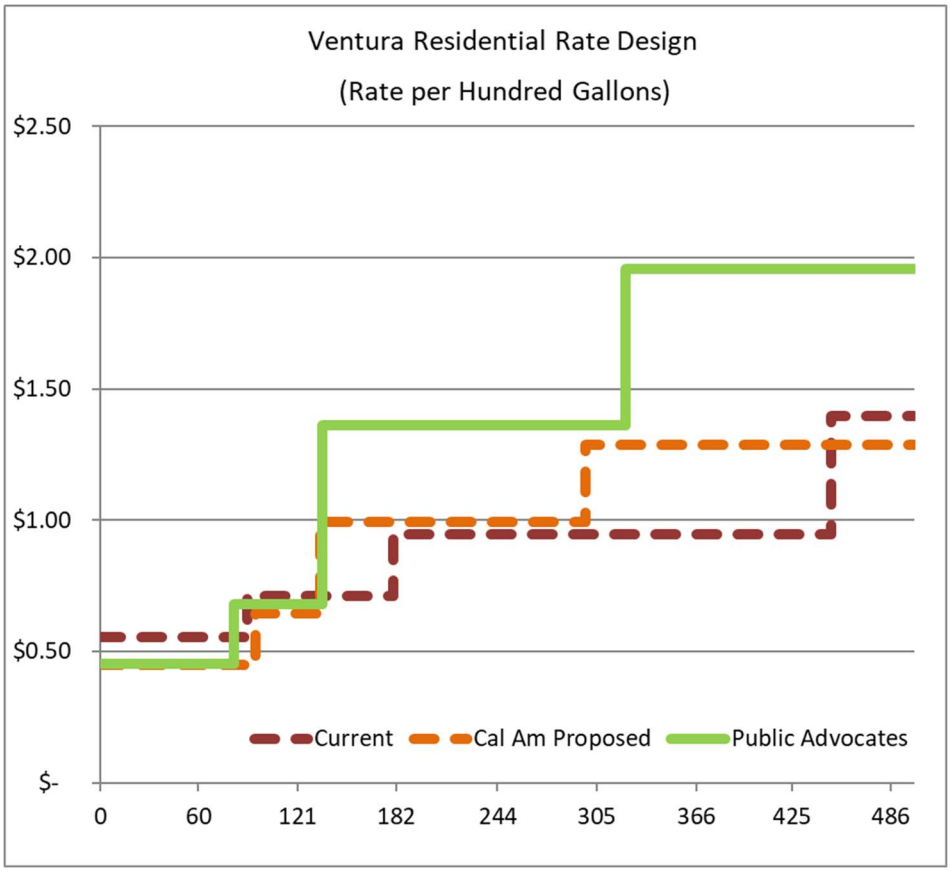
244
305
366
425
486
Current
Cal Am Proposed
Public Advocates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(Rate per Hundred Gallons)
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$-
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366
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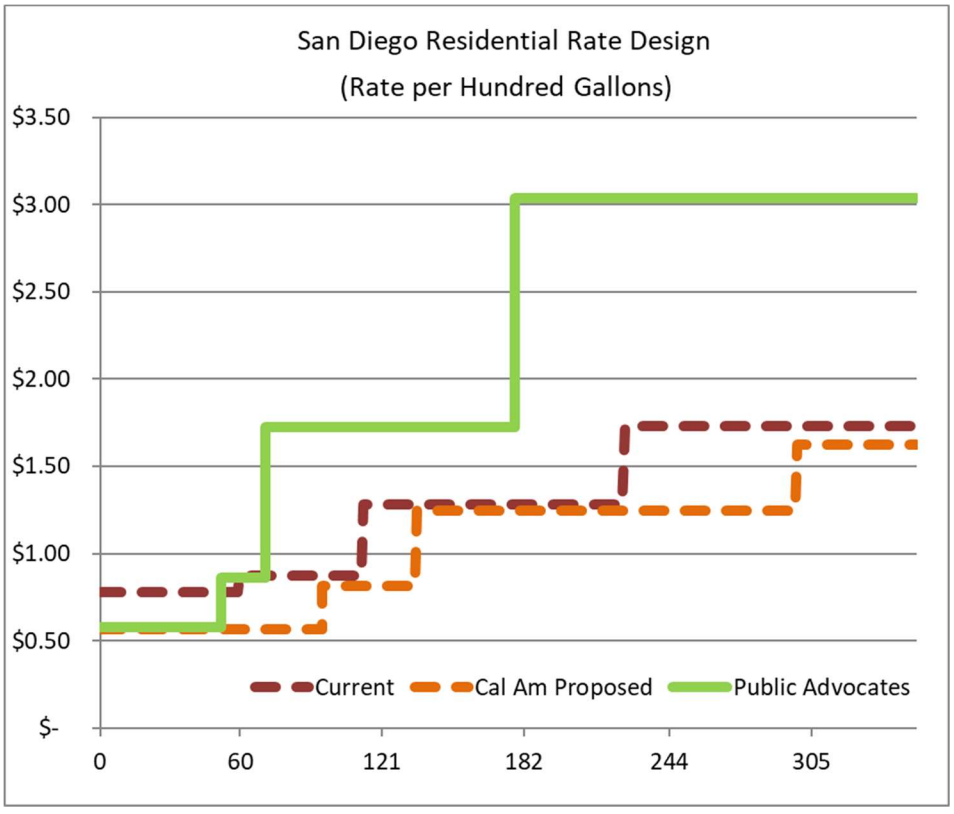
486
Current
Cal Am Proposed
Public Advocates


San Diego Residential Rate Design
(Rate per Hundred Gallons)
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$3.00
$2.50
$2.00
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$1.00
$0.50
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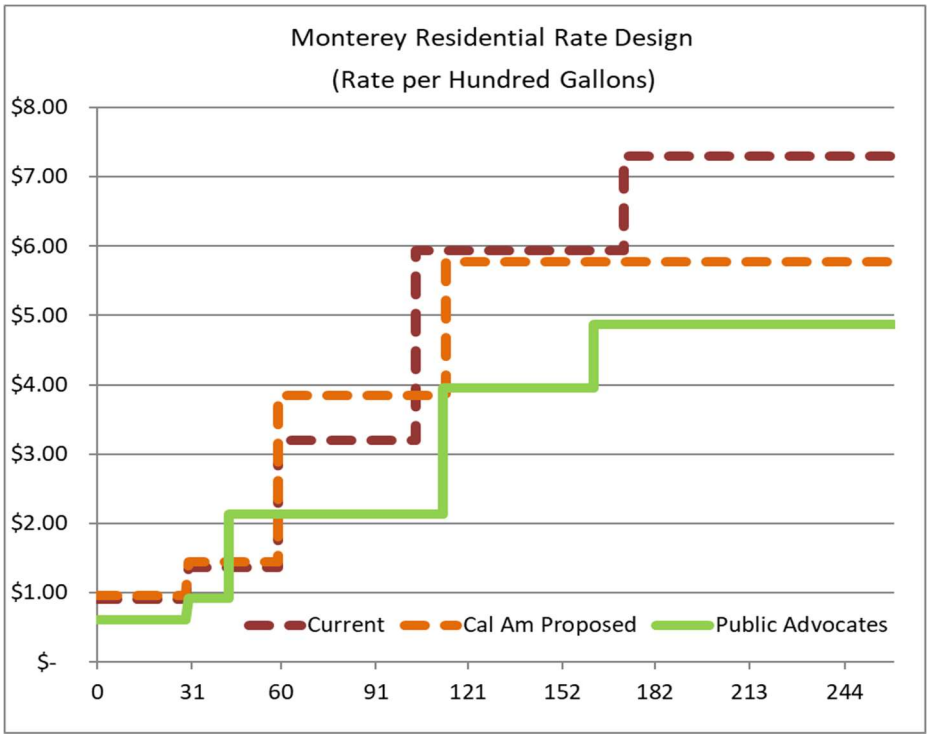
Current
Cal Am Proposed
Public Advocates


Monterey Residential Rate Design
(Rate per Hundred Gallons)
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$7.00
$6.00
$5.00
$4.00
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0
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91
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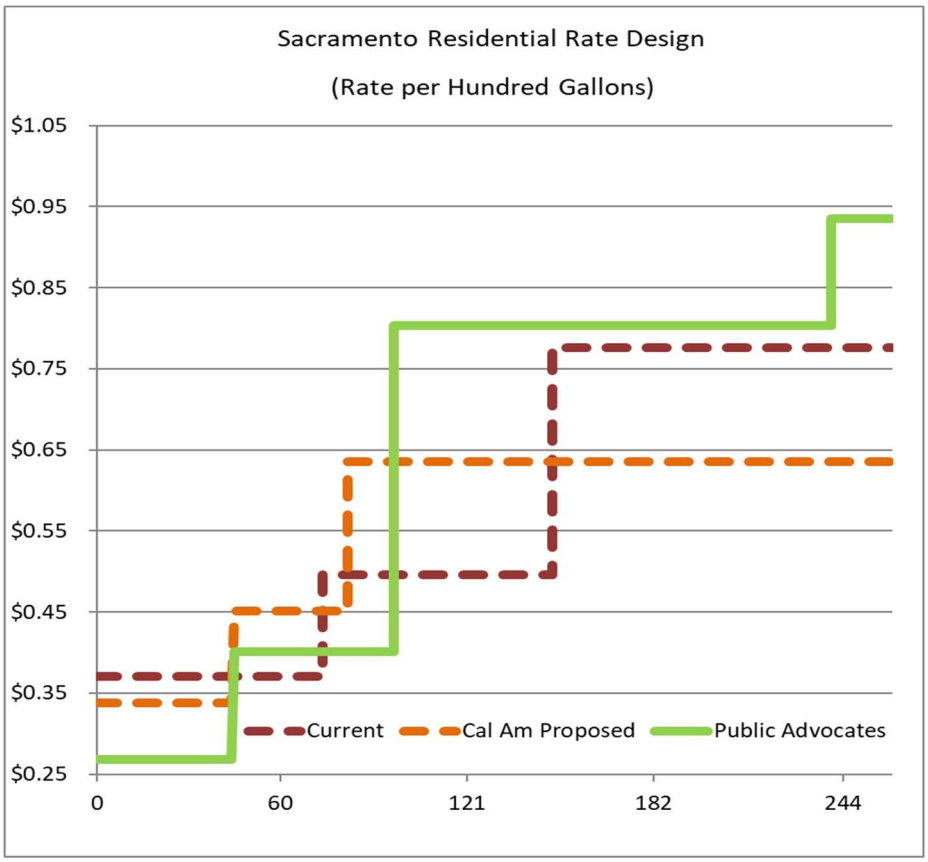
152
182
213
244
Current
Cal Am Proposed
Public Advocates


Sacramento Residential Rate Design
(Rate per Hundred Gallons)
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$0.75
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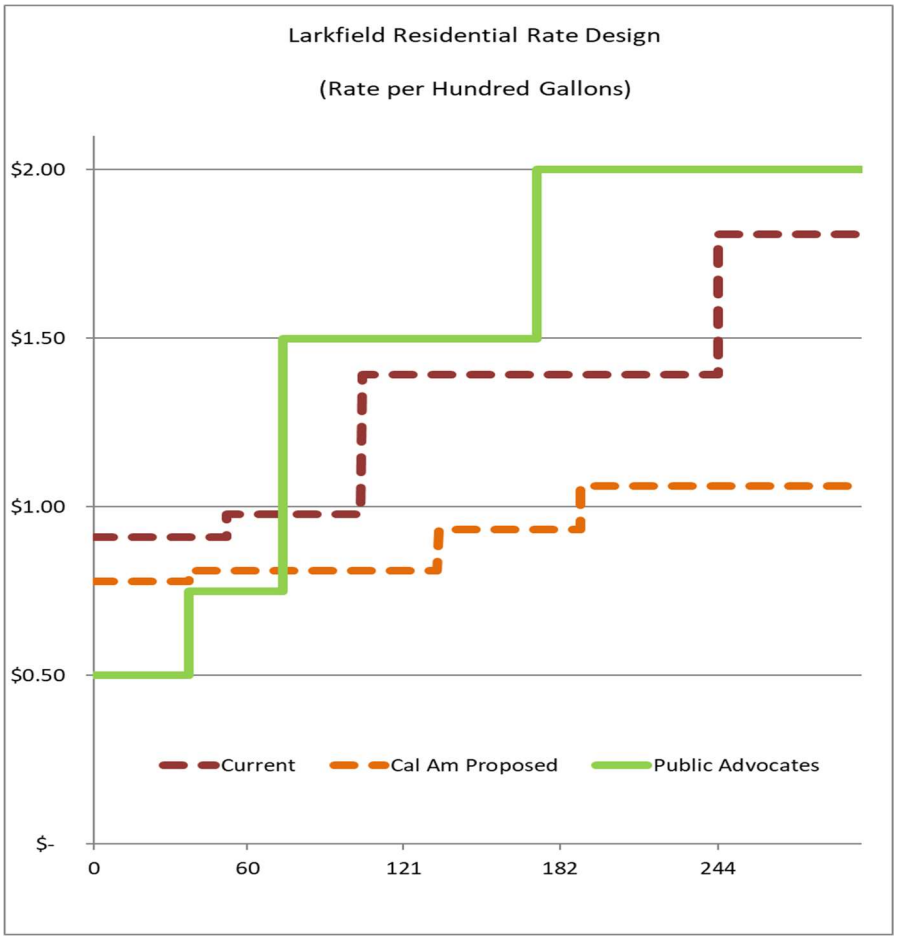
$0.25
0
60
121
182
244
Current
Cal Am Proposed
Public Advocates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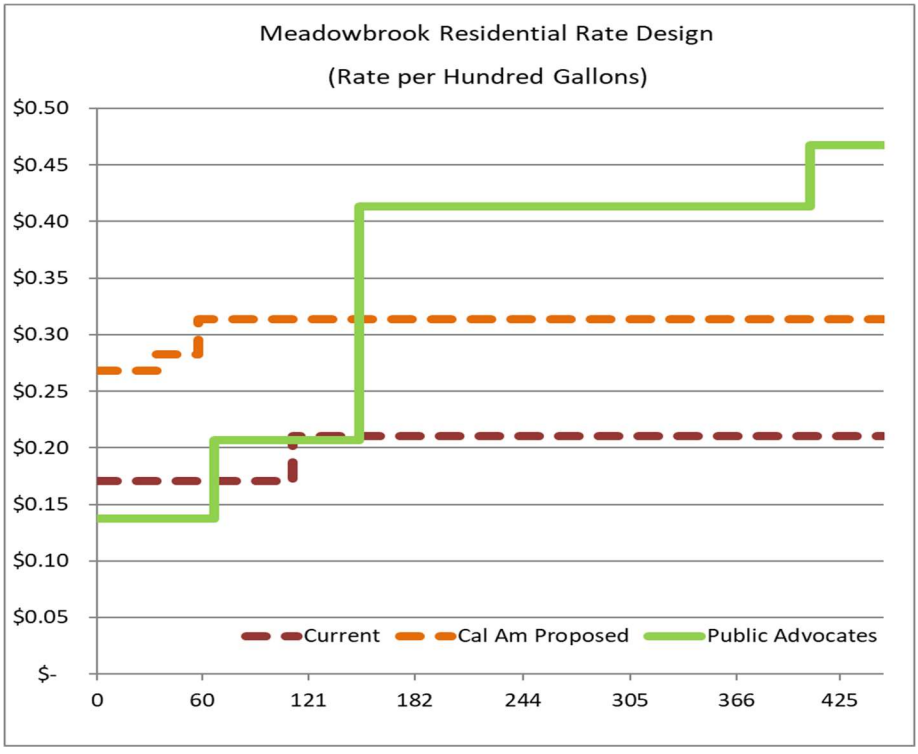
Current
Cal Am Proposed
Public Advocates


Meadowbrook Residential Rate Design
(Rate per Hundred Gallons)
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$0.45
$0.40
$0.35
$0.30
$0.25
$0.20
$0.15
$0.10
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Cal Am Proposed
Public Advocates

Attachment 6: Cal Am Response to the City of Thousand Oaks' Data Request

[Provided on CD]

Attachment 7: Cal Am Rule 18.B.4 (Tariff Sheet)

Rule No. 18
METER TESTS AND ADJUSTMENT OF BILLS FOR METER ERROR

A Tests on Customer Request

1. Compliance by Utility

The utility will within one week after request by a customer proceed to test the meter serving the customer's premises, except where service is rendered from open conduits such test may be deferred for a reasonable length of time when it would necessitate the interruption of service to any other customer. Such test of meters, other than displacement meters for which standards of accuracy are established in Rule No. 17, Measurement of Service, will consist of an acceptable method of verifying the accuracy of the meter.

2. Charge for Test

No charge will be made for the test of a meter made at the request of a customer, except where a customer requests a test within six months after installation of the meter or more often than once a year, in which cases the customer shall be required to deposit with the utility the following amount to cover the cost of each such test:

Size of Meter	Amount of Deposit
One inch or smaller	$2.00
Larger than one inch	$3.00

3. Test Procedure

Every meter tested at the request of a customer will be tested in the condition as found in the customer's service prior to any alteration or adjustment in order to determine the average meter error. This test will consist of testing at three rates of flow as determined in Rule No. 17 under "Accuracy Requirements of Water Meters", and in addition, at twice the minimum test flow. The average meter error will be considered to be the algebraic average of the errors of the three highest test flows.

4. Return of Deposit

Any deposit made under paragraph 2, above, will be returned to the customer if the average meter error is found to be more than 2% fast. The customer will be notified not less than five in advance of the time and place of the test.

5. Location of Test

A customer will have the right to require the utility to conduct the test in such customer's presence or in the presence of a representative of such customer. Where the utility has no proper meter testing facilities available locally, the meter may be tested by a meter manufacturer or its agency, or by any other reliable organization equipped for water meter testing or by the utility's meter testing plant where located in some other community, in which latter case the utility upon demand of the customer will furnish the customer with a notarized statement certifying as to the method used making the test and as to the accuracy of the meter.

(Continued)

Rule No. 18 (Continued)
METER TESTS AND ADJUSTMENT OF BILLS FOR METER ERROR

A 6. Report of Test to Customer

A report showing the results of the test will be furnished to the customer within 15 days after the completion of the test.

B. Adjustment of Bills for Meter Error

1. Fast Meters

When, upon test. a meter is found to be registering more than 2% fast, the utility will refund to the customer the amount of the overcharge based on corrected meter readings for the period the meter was in use but not to exceed a period of six mo9ths.

2. Slow Meters

a. Commercial Service

When, upon test, a meter used for commercial (residential and business) service is found to be registering more than 25% slow, the utility may bill the customer for the amount of the undercharge based upon corrected meter readings for the period the meter was in service but not to exceed a period of three months.

b. Other than Commercial Service

When, upon test. a meter used for other than commercial service, is found to be registering more than 5% slow, the utility may bill the customer for the amount of the undercharge based upon corrected meter readings for the period the meter was in service but not to exceed a period of three months.

3. Non Registering Meters

The utility may bill the customer for water consumed while the meter was non registering, but not to exceed a period of three months, at the minimum monthly meter rate, or upon an estimate of the consumption based upon the customer's prior use during the same season of the year if conditions were unchanged, or upon an estimate based upon a reasonable comparison with the use of the other customers during the same period receiving the same class of service under similar circumstances and conditions.

4. General

When it is found that the error in a meter is due to some cause. the date of which can be fixed. the overcharge or the undercharge will be computed back to but not beyond such date

Attachment 8: Rule 18 Tariff Sheets for Other Class A Water IOUs

Rule No. 18

METER TESTS AND ADJUSTMENT OF BILLS FOR METER ERROR

A. Tests on Customer Request

1. Compliance by utility

The utility will within one week after request by a customer proceed to test the meter serving the customer's premises, except where service is rendered from open conduits such test may be deferred for a reasonable length of time when it would necessitate the interruption of service to any other customer. Such test of meters, other than displacement meters for which standards of accuracy are established in Rule No. 17, Measurement of Service, will consist of an acceptable method of verifying the accuracy of the meter.

2. Charge for Test

No charge will be made for the test of a meter made at the request of a customer, except where a customer requests a test within six months after installation of the meter or more often than once a year, in which cases the customer shall be required to deposit with the utility the following amount to cover the cost of each such test:

Size of Meter	Amount of Deposit	
One inch or smaller	$25.00	(I)
Larger than one inch	$50.00	(I)

3. Test Procedure

Every meter tested at the request of a customer will be tested in the condition as found in the customer's service prior to any alteration or adjustment in order to determine the average meter error. This test will consist of testing at the three rates of flow as determined in Rule No. 17 under "Accuracy Requirements of Water Meters", and in addition, at twice the minimum test flow. The average meter error will be considered to be the algebraic average of the errors of the three highest test flows.

4. Return of Deposit

Any deposit made under paragraph 2, above, will be returned to the customer if the average meter error is found to be more than 2% fast. The customer will be notified not less than five days in advance of the time and place of the test.

(Continued)

Rule No. 18

METER TESTS AND ADJUSTMENT OF BILLS FOR METER ERROR

5. Location of Test

A customer will have the right to require the utility to conduct the test in such customer's presence or in the presence of a representative of such customer. Where the utility has no proper meter testing facilities available locally, the meter may be tested by a meter manufacturer or its agency, or by any other reliable organization equipped for water meter testing or by the utility's meter testing plant where located in some other community, in which latter case the utility upon demand of the customer will furnish the customer with a notarized statement certifying as to the method used in making the test and as to the accuracy of the meter.

6. Report of Test to Customer

A report showing the results of the test will be furnished to the customer within 15 days after the completion of the test.

B. Adjustment of Bills for Meter Error

1. Fast Meters

When, upon test, a meter is found to be registering more than 2% fast, the utility will refund to the customer the amount of the overcharge based on corrected meter readings for the period the meter was in use but not to exceed a period of six months.

2. Slow Meters

a. Commercial Service

When, upon test, a meter used for commercial (residential and business) service is found to be registering more than 25% slow, the utility may bill the customer for the amount of the undercharge based upon corrected meter readings for the period the meter was in service but not to exceed a period of three months.

(Continued)

2. Slow Meters (Continued)

   b. Other than Commercial Service

   When, upon test, a meter used for commercial service, is found to be registering more than 5% slow, the utility may bill the customer for the amount of the undercharge based upon corrected meter readings for the period
   the meter was in service but not to exceed a period of three months.

3. Nonregistering Meters

   The utility may bill the customer for water consumed while the meter was nonregistering, but not to exceed a period of three months, at the minimum monthly meter rate, or upon an estimate of the consumption based upon the customer's prior use during the same season of the year if conditions were unchanged, or upon an estimate based upon a reasonable comparison with the use of other customers during the same period receiving the same class of service under similar circumstances and conditions.

4. General

   When it is found that the error in a meter is due to some cause, the date of which can be fixed, the overcharge or the undercharge will be computed back to but
   not beyond such date.

Rule No. 18

METER TESTS AND ADJUSTMENT OF BILLS FOR METER ERROR

A. Tests on Customer Request

1. Compliance by Utility

The Utility will within one week after request by a customer proceed to test the meter serving the customer's premises, except where service is rendered from open conduits such test may be deferred for a reasonable length of time when it would necessitate the interruption of service to any other customer. Such test of meters, other than displacement meters for which standards of accuracy are established in General Order No. 103, Measurement of Service, will consist of an acceptable method of verifying the accuracy of the meter. (T)

2. Charge for Test

No charge will be made for the test of a meter made at the request of a customer, except where a customer requests a test within six months after installation of the meter or more often than once a year, in which cases the customer shall be required to deposit with the Utility the following amount to cover the cost of each such test:

Size of Meter	Amount of Deposit
One inch or smaller....	$2.00
Larger that one inch...	$3.50

3. Test Procedure

Every meter tested at the request of a customer will be tested in the condition as found in the customer's service prior to any alteration or adjustment in order to determine the average meter error. This test will consist of testing at the three rates of flow as determined in General Order No. 103 under "Accuracy Requirements of Water Meters", and in addition, at twice the minimum test flow. The average meter error will be considered to be the algebraic average of the errors of the three highest test flows. (T) (T)

4. Return of Deposit

Any deposit made under paragraph 2, above, will be returned to the customer if the average meter error is found to be more than 2% fast. The customer will be notified not less than five days in advance of the time and place of the test. (L) (L)

(Continued)

Rule No. 18
(Continued)

METERED TESTS AND ADJUSTMENT OF BILLS FOR METER ERROR

(L)

A. 5. Location of Test

A customer will have the right to require the Utility to conduct the test in such customer's presence or in the presence of a representative of such customer. Where the Utility has no proper meter testing facilities available locally, the meter may be tested by a meter manufacturer or its agency, or by any other reliable organization equipped for water meter testing or by the community, in which latter case the Utility upon demand of the customer will furnish the customer a notarized statement certifying as to the method used in making the test and as to the accuracy of the meter.

6. Report of Test to Customer

A report showing the results of the test will be furnished to the customer within 15 days after the completion of the test.

B. Adjustment of Bills for Meter Error

1. Fast Meters

When upon test, a meter is found to be registering more than 2% fast, the Utility will refund to the customer the amount of the overcharge based on corrected meter readings for the period the meter was in use but not to exceed a period of six months.

2. Slow Meters

a. Commercial Service

When, upon test, a meter used for commercial (residential and business) service is found to be registering more than 25% slow, the Utility may bill the customer for the amount of the undercharge based upon corrected meter readings for the period the meter was in service but not to exceed a period of three months.

(Continued)

Rule No. 18
(Continued)

METER TESTS AND ADJUSTMENT OF BILLS FOR METER ERROR

B. 2. b. Other than Commercial Service

When upon test, a meter used for other than commercial service, is found to be registering more than 5% slow, the Utility may bill the customer for the amount of the undercharge based upon corrected meter readings for the period the meter was in service but not to exceed a period of three months.

3. Non-registering Meters

The Utility may bill the customer for water consumed while the meter was non-registering, but not to exceed a period of three months, at the minimum monthly meter rate, or upon an estimate of the consumption based upon the customer's prior use during the same season of the year if conditions were unchanged, or upon an estimate based upon a reasonable comparison with the use of other customers during the same period receiving the same class of service under similar circumstances and conditions.

4. General

When it is found that the error in a meter is due to some cause, the date of which can be fixed, the overcharge or the undercharge will be computed back to but not beyond such date.

Attachment 9: Rule 10 Tariff Sheets for Other Class A Water IOUs

Rule No. 10

DISPUTED BILLS

A. Correctness of Bill

Any customer who has initiated a complaint to the utility or requested an investigation by the utility within five days of receiving a contested bill shall be given an opportunity for review of such complaint or investigation by a review manager of the utility. The review shall include consideration of whether the customer should be permitted to amortize the unpaid balance of his account over a reasonable period time.

B. Notice of Deposit to Avoid Discontinuance

If an explanation satisfactory to the customer is not made by the utility and the bill is not paid within 19 days after its presentation or at the time the explanation is made, whichever is longer, the utility will notify the customer in writing substantially as follows:

1. To avoid discontinuance of service, in lieu of paying the bill in question, the residential customer within 15 days and the non-residential customer within 7 days of the date of this notice, must deposit with the California Public Utilities Commission, State Building, 505 Van Ness Avenue, San Francisco, California 94102-3298,* the amount of the bill claimed by the utility to be due.

2. To avoid having service turned off while you wait for the outcome of a complaint to the CPUC **specifically regarding the accuracy of your bill**, please contact the CPUC's Consumer Affairs Branch (CAB) for assistance. If your case meets the eligibility criteria, CAB will provide you with instructions on how to mail a check or money order to be impounded pending resolution of your case. You must continue to pay your current charges while your complaint is under review to keep your service on. (N)

C. Commission Appeal

When a customer and the utility fail to agree on a bill for service:

1. To avoid discontinuance of service, in lieu of paying the disputed bill the customer, may deposit with the California Public Utilities Commission at its office in the State Building, 505 Van Ness Avenue, San Francisco, California 94102-3298,* the amount claimed by the utility to be due.

2. Checks or other forms of remittance for such a deposit should be made payable to the California Public Utilities Commission and should be accompanied with the bill in question and a statement setting forth the basis for thru dispute of the amount of the bill.

3. Upon receipt of the deposit, the bill and the customer's statement of the dispute, the Commission will notify the utility, will review the basis of the billed amount, and will advise both parties of its findings and disburse the deposit in accordance therewith.

(continued)

Rule No. 10

DISPUTED BILLS (Continued)

C. Commission Appeal (continued)

4. Service will not be discontinued for nonpayment of the disputed bill when deposit has been made with the Commission pending the outcome of the Commission's review.

5. Failure of the customer to make such deposit prior to the expiration of the discontinuance of service notice as given in Rule 10 B.1. will warrant discontinuance of service. (C) (C)

6. If before completion of the Commission's review, additional bills become due which the customer wishes to dispute, he shall also deposit with the Commission the additional amounts claimed by the utility to be due for such additional bills before they become past due and failure to do so will warrant discontinuance of his service in accordance with Rule No. 11.

Attachment 10: Witness Qualifications

QUALIFICATIONS AND PREPARED TESTIMONY OF SUZIE ROSE

Q.1 Please state your name and business address.

A.1 My name is Suzie Rose and my business address is 915 L St, Sacramento, CA 95814.

Q.2 By whom are you employed and in what capacity?

A.2 I am a Senior Utilities Engineer in the Communication and Water Policy Branch of the Public Advocates Office at the California Public Utilities Commission.

Q.3 Briefly describe your pertinent educational background.

A.3 I received a Bachelor of Science Degree in Civil and Environmental Engineering from the Duke University. I received my Professional Engineer License in Civil Engineering in the State of California in 2014.

Q.4 Briefly describe your professional experience.

A.4 I joined the Office of Ratepayer Advocates Water Branch in February 2012. My previous relevant professional experience includes working as an Assistant Engineer at East Bay Municipal Utilities District in Oakland, CA where I worked for two years in the Division of Water Recycling and Wastewater Planning, and working as a Consulting Engineer for O'Brien & Gere Engineers in Landover, Maryland for two years, where I specialized in water treatment and distribution. I have previously testified in the California American Water Monterey Peninsula Water Supply Project Application, the California American Water 2015 General Rate Case, the Golden State Water Company 2016 General Rate Case, the California American Water Monterey Rate Design Application, and the California American Water 2018 General Rate Case,

Q.5 What is your responsibility in this proceeding?

A.5 I am responsible for the testimony on Cal Am's Sales Forecasting, Revenues, Rate Design, and Special Requests #1 (Consolidation of Southern Division), #4 (Leak Adjustment Policy), #5 (Modification of Existing 15% Cap on WRAM Amortization), #7 (Alignment and Simplification of District Specific Tariffs), #8 (Meadowbrook Rate Design Consolidation Deferral), #12 (Annual Consumption Adjustment

Mechanism), #15 (Proposed Operational Tariff Modifications), and #17 (Monterey Wastewater High Cost Fund), presented in this report.

Q.6 Does that conclude your direct testimony?

A.6 Yes, it does.